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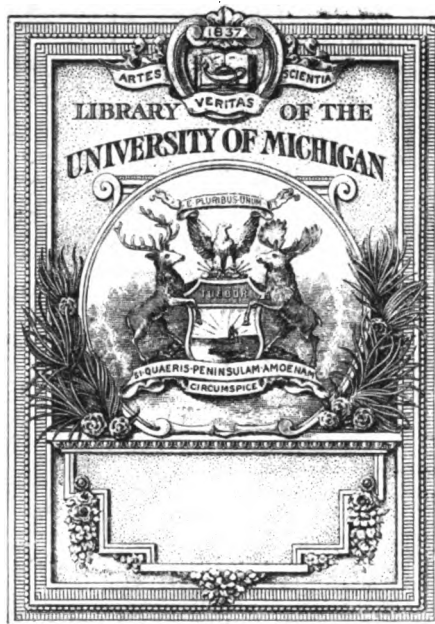
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Original Communications.

A Clinic on Pleurisy, Gastric Carcinomata, and Cerebral Meningitis in Bellevue Hospital, New York.

BY AUSTIN FLINT, M. D.

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WE HAVE here, gentlemen, a patient whom I saw in the wards to-day, and I propose to call your attention first to the physical signs which the chest presents. I will say in advance that I expect to find the evidences of a certain amount of liquid in the pleural cavity on one side. Having called your attention to the physical signs, I will then read the history which presents some points of interest.

I will first practice percussion. I do not know yet on which side this effusion exists. Here at the upper part of the chest we get a vesicular tympanitic resonance on the left side. Now, it is a rule that if we have liquid in the pleural cavity occupying a certain portion of the pleural space, a quarter, a half, or perhaps two-thirds, the percussion resonance over the lung above the level of the liquid is of a vesicular tympanitic character. That is, its intensity is increased, its pitch is raised, and it has a tension as regards quality of a tympanitic and a vesicular character. So great is the difference between the two sides here that at first you might think we had dullness on this side, (the right,) but the difference is not due to any diminution of the resonance here, but to an increase of resonance there, and with that increased intensity we have, as I said, elevation of pitch and a tympanitic quality commingled with the vesicular. I will not take the time to map out the line of flatness which we get behind on the left side, but that flatness is due either to the presence of liquid or to the solidification of the lung,

or to a tumor. In view of the infrequency of tumors we will throw that out.

So that the problem is, taking the case just as we find it here, having flatness over the lower part of the chest on one side, does that flatness depend on the presence of fluid or on consolidation of lung? Now, what are the points bearing on this question? if the flatness be due to the presence of liquid we shall find that we have, probably, no respiratory murmur here. If we get any it is transmitted laterally from the right side to the left, or possibly transmitted from above below the level of the liquid; we may get a murmur derived in these ways, but as a rule we find none; silence, therefore, as regards the respiratory murmur. The vocal resonance should be either wanting, or diminished as compared with the opposite side; the same is true of vocal fremitus; it should be wanting or diminished. On the contrary, if we have solidification of the lung here we would expect to get respiratory sounds, in the great majority of cases we do, though they may be absent. We would expect to get respiratory sounds, but not a normal vesicular murmur; on the contrary, a morbid sound called a bronchial or tubular respiration, that respiratory sound which attends solidification of lung, in either a complete or a partial solidification. If there be a solidification we should get with the voice bronchophony.

By means then of these signs we are able to determine readily and without difficulty. On listening here I find it almost silent; I can perceive a distant very feeble respiratory murmur which is either from above or on this side; probably on this side. I should say that sometimes when we have much liquid in the pleural cavity, and the lung is compressed into a solid mass in the upper part of the chest, the bronchial respiration which that solid, compressed lung gives is conducted downwards so as to be heard

more or less over the space occupied by the liquid. And I may add another thing, the condensation of the lung at the level of the liquid not unfrequently, although the chest may not be filled with liquid, is sufficient to give rise to bronchophony as well as bronchial respiration, and that may be conducted a little distance down. Here, up at this point posteriorly which I suppose to be very near the level of the liquid, I get marked bronchophony as compared with the other side; there is also a greater intensity of resonance and a rise of pitch, and when I carry the ear a little farther down, going below the level of the liquid, the bronchophony which I perceived here undergoes some modification; it becomes distant. It has something of a bleating character, it has become, in other words, egophonic; the egophonic character of the transmitted bronchophony is here very well marked. When I come lower down then I lose vocal resonance, or it becomes feeble as compared with the other side.

Now, taking these physical signs, we have indubitable evidence of the presence of liquid in the pleural cavity, and now the next question is as to the character of that liquid. We will read the history as its character has already been ascertained:

This patient's name is John C., twenty-five years of age, is a compositor by occupation; he was admitted into the hospital on the 19th of March last. None of the patient's immediate relatives have shown any tendency to pulmonary disease. The patient has led a regular and a temperate life, he has not been exposed to hardships, nor has his employment been particularly laborious. He has never used alcoholic beverages to any extent. He has had gonorrhœa, but not syphilis. In other respects he has been uniformly healthy with the exception of some pulmonary disease of a nature unknown to him, which confined him to his bed three or four days two years ago. There is some reason to suspect that it may have been a pleurisy; or it may have been a pneumonia. Since then he has been troubled with a frequently recurring bronchitis.

The patient was attacked on the 18th of March with a chill and severe pain under the left nipple. He began to cough almost immediately, and his sputa were streaked with

blood. He had also an intense febrile movement, delirium became marked.

On March 19th and under these circumstances he was removed to the hospital. The patient on his admission was delirious, his face was flushed, his tongue coated, his sputa were rusty, his cough was frequent, his pulse was 125, his respirations 42, his temperature 104°; his urine was scanty and high colored, otherwise normal.

Physical examination showed complete consolidation of the upper lobe and of the upper half of the lower lobe of the left lung. Crepitant râles were present over the lower lobe of the lung.

Taking these symptoms and signs there is no difficulty in reaching the conclusion that this patient had at that time an attack of acute pneumonia, or pneumonic fever, which invaded the upper lobe on this left side first, and invaded the lower lobe on the same side secondly, but did not extend over the whole of that lobe, at least we have no record that it did so.

These symptoms remained the same for several days, the temperature varying from 103° to 104°. On March 22d a friction sound was heard over the base of the left lung, that is not uncommon in cases of pneumonia. In cases generally of pleuro-pneumonia the exudation of fibrine gives rise to a friction sound. Perhaps it is as often heard in cases of pneumonia as in cases of primary pleurisy. This was soon followed by the accumulation of a little quantity of liquid in the left pleural cavity. Now, physical signs which are not given in the history showed the accumulation of liquid, and this liquid was ascertained to be pure serum. How? By a simple method, and one to which we can always resort; by means of the hypodermic syringe introduced into the chest, a little of this liquid was withdrawn. The operation gives no pain of any consequence and is important, in the first place furnishing demonstrative proof of the presence of liquid, and in the second place giving us information of the character of the fluid. Well, it was pure serum.

Now, on the 27th of March the temperature fell to 99.25°, and all the symptoms now betoken convalescence, but although resolution began it did not progress rapidly, and the fluid in the pleural cavity was not reabsorb-

ed. On April 1st, the patient had a chill, and the temperature rose to 101° ; on the 5th of April it was 102.25° .

Now, it is interesting to mark the occurrence of a chill at this time, and the rise of temperature. The temperature had fallen, you see, to 99.25° , a very little above the maximum range for health. It rose after the chill to 101° , and the next day to 102.25° , something evidently had taken place. What was that something? The next sentence tells what it was; some of the fluid was again withdrawn and found to be purulent. Here was suppuration of the fluid, and that suppuration was indicated by a chill and a rise of temperature. Since that time the patient has at no time been free from febrile movement, the temperature ranging from 100° to 102° . On the morning of April 22d, yesterday, it was 102° ; the patient has, however, been gradually gaining in strength under the influence of persistent supporting measures.

Well, we have, gentlemen, with this case an interesting history, in the first place of the attack of pneumonia invading the upper lobe, which is out of the usual order, extending to or rather invading the second lobe; then followed at about the time of convalescence with, first, a serous effusion and next suppurative inflammation taking place, and the liquid becoming purulent. This latter is not a very common thing. That is, if we have a serous effusion it remains so as a rule, with certain exceptions. I mean to say that when we have empyema, suppurative pleurisy, we have it from the start, and the fluid from the outset is of a purulent character. But sometimes it is otherwise, and it is important to know the fact that it does become purulent, having been serous at first, in the natural course of the disease, because when we resort to aspiration sometimes we find that to be the case. It has been suggested as an objection to aspiration that it has a tendency to produce this suppuration. I doubt if there be any tendency of that kind. I think the cases in which we find the fluid in our early aspiration to be serous and afterwards purulent are those in which the same change would have taken place had not aspiration been performed, for I should hardly call that aspiration where we take away only about half a teaspoonful of liquid by a little puncture made with the hypodermic syringe.

There now comes up a question which I am not prepared to answer at this moment; I have not seen the case long enough, and that is as to the propriety of resorting to aspiration. If we have pus in any considerable quantity in the chest, any quantity except a very small quantity, the practical rule is that the pus should be taken out. If not, it tends generally to accumulate, and there is liability to perforation of the lung which is a direction to discharge the pus not to be desired; and to prevent this, and because the presence of pus produces more or less fever of a septic character, and inasmuch as the pus itself will not be absorbed if it be in any considerable quantity, it should be drawn off. If not drawn off, it will remain there, until it finds its way naturally externally; or through the lung, or sometimes through the diaphragm, though very rarely. It is wise to take it up, first by aspiration, and we may resort to aspiration several times. Sometimes the pus does not form again, though as a rule it does. If you find that the pus continues to form, there remains a permanent opening of the chest to be made so as to give constant drainage to the pus, and an opportunity to wash out the pleura and inject a substance which may permit of restoration. Now, as to the propriety of resorting to these measures at this time I am not prepared to judge except to this extent, that here is pus, a small quantity, and I think it should be aspirated, but as to the future steps they would depend upon circumstances. I have no control over the patient, and therefore I have nothing to say except what I have already said.

In connection with this case, gentlemen, I wish to show you this liquid, which is a serous liquid evidently, as you perceive, colored with blood, this was taken from the chest of a patient to-day from which a considerable quantity of liquid was withdrawn, all of it having this color and evidently containing blood. The question arises as to the significance of the bloody serum in cases of pleurisy.

Dr. Bowditch, who has had a very large experience in aspiration, said that if the serum be bloody as a rule the existence of malignant disease is to be inferred, and as a rule I think that holds true. At the same time if aspiration be employed after new tissue has formed over a portion of the pleu-

ra, and this new tissue containing blood vessels should be tender and liable to rupture, the source of the blood may in that way be explained from the rupture of the newly formed vessels in the newly formed and tender adventitious tissue.

In this case the pleurisy was apparently acute, it had existed only for a few days so that it does not seem very probable that a malignant disease exists. If there were, the affection would have been chronic.

This patient, gentlemen, you saw last Friday. I gave some consideration to the case, but was unable for want of time to go over it thoroughly. The patient's general condition at this time is not very good, his mind is considerably disordered, he has been delirious. I do not propose to occupy much time with the case to-day, but I present him that you may keep the important points in the case in mind with reference to the future. The patient has a history which I will not read over altogether, but simply the important points.

Six months ago the patient, who is a native of Ireland, a tailor by trade, had general œdema, and came to the hospital. The œdema disappeared, but returned again four weeks ago in a greater degree, he again entered the hospital, having œdema of the feet, legs, and eyes, and very marked hydrothorax. The urine was smoky, contained granular, hyaline and bloody casts. I will, now, read the history as it has been recorded for the past week, since our last meeting.

The patient had general dropsy, a disproportionate amount of accumulation in the peritoneal cavity, and, please bear in mind that on that fact I based the opinion that in addition to the disease of the kidneys which he has there is disease of the liver. That is a fair inference where we find that the accumulation of dropsical effusion in the peritoneal cavity is out of proportion to the general dropsy. As regards his renal affection this point arose: He had smoky urine, and the question was whether it was a case purely of acute parenchymatous nephritis, or whether this patient has a chronic affection with the acute superadded, and the latter is perhaps the probable supposition. He was passing a week ago a very small quantity of urine, he was under treatment with the infusion of digitalis with especial reference to its action as a diuretic, and last Friday he

had taken it for several days without any effect. On the 15th of April the quantity of urine passed was only eleven ounces; it was smoky, acid, with a specific gravity 1005, and contained considerable albumen. It was only eleven ounces so far as could be ascertained, and perhaps you recollect that I expressed the opinion that he must pass more than that, for eleven ounces of urine in twenty-four hours with a specific gravity of 1005 would be pretty sure to be accompanied with marked symptoms of uræmia; but these were not present.

On the 16th he passed an increased quantity of urine, 32 ounces; this, it was fair to attribute to the action of the digitalis. On the 17th the accumulation of the peritoneal fluid being enough to occasion considerable inconvenience he was tapped, and there was withdrawn from the cavity 238 ounces of fluid. On that day he passed 60 ounces of urine. Now, there were two causes for the rapid increase in the quantity of urine; one was the digitalis, and another was the taking off the mechanical pressure of the liquid in the peritoneal cavity. On the 18th he passed 56 ounces of urine, and the general œdema was much less. He expressed himself as feeling much better. On the 19th he passed in the twenty-four hours 36 ounces of urine. On the 20th it could not be very well ascertained, so much of it was lost. He had on this day no desire to eat, complained that taking food produced nausea, and refused to take food. On the 21st he passed in the twenty-four hours only 10 ounces of urine, and he still refused to take food. On the 22d, which was yesterday, he passed in the twenty-four hours only 10 ounces of urine, and at times he was delirious, and still declined to take food.

Well, what is his condition to-day? His mind is somewhat better; he does not give the evidence of delirium, but still his mind is not right, and he is passing a small amount of urine, and he can not be made voluntarily to take food.

This case, gentlemen, like the other, is not under my care, and I will say nothing about the treatment to-day, but as I have already said, I present the case to you to-day that you may keep the facts in mind and observe the progress of the case for the future.

I may say however with regard to the indications for treatment, evidently two things

are desirable here. In the first place the patient must be nourished, and if he will not take food by the mouth it must be administered by injections. The house physician tells me he had elaterium two days ago which produced a pretty free hydragogue operation; that was good. He should be nourished, of course, and if diuretics can not be administered, or if the kidneys do not respond to them, hydragogues must be given from time to time to ward off danger in the direction of uræmia.

Those of you, gentlemen, who were here last winter will recollect this case. This patient I brought before the class several times during the winter session. First, he was brought before the class with reference to the question whether there existed ulcer of the stomach. His prominent symptoms were vomiting and pain. He had not vomited blood. When I first presented the patient, which was pretty early in the winter session, I took up in connection with the case the differential points involved in discriminating between ulcer of the stomach and chronic gastritis, and cancer; but at first I did not find sufficient data for a positive diagnosis either of ulcer or of cancer, and as the patient had been addicted to the use of alcoholics pretty largely and for a considerable time, I thought it probable that it might prove to be a case of simple chronic gastritis. But the case went on and the patient did not improve, or did not get well, and I brought him again before the class, took up the same points, and, I believe, stated that I felt that I must abandon the idea that it was a simple case of gastritis, that it was something more, because under the circumstances here, the treatment, rest and all that, he ought to have got well of his gastritis, or at all events to improve, but he did not, and I declined to make any positive diagnosis; but I was at that time rather inclined to the idea that it was ulcer.

This patient was nourished by rectal alimentation for several weeks, with a view of keeping the stomach entirely at rest, and we thought that we were going to accomplish considerable in that way. Of course the gastric symptoms were not marked while he was thus nourished, and he began to take food after awhile and seemed to tolerate it pretty well, and we felt greatly encouraged. Then again, the vomiting returned, and the

pain returned, and he has from that time to this vomited frequently and suffered a good deal of pain.

Well, now the case presents a new feature. Of course, examinations were made with care to see whether a tumor could be perceived, and cancer was excluded on the ground that no tumor could be found. That is to say, if we fail to find a tumor we cannot positively exclude cancer, but we can say that we have not enough data for a diagnosis. Well, I have not been on duty now for nearly two months, and on coming to the hospital I find this patient as you see him. He has lost weight evidently; he is emaciated; his gastric symptoms continue, and now there is evidently something to be perceived in the epigastrium, and we will direct our attention to that.

Here is distinctly a resisting mass. I must caution you against a source of error which, without due care, is not easy to avoid, and that is, if there be sensitiveness at any particular point of the abdomen, especially in the direction of the rectus muscle when you make pressure, it throws a segment of that muscle into tonic contraction, and it gives to the touch the sense of a tumor. Bear in mind that liability to error. You will find cases in which it will be difficult to form an opinion at once, whether the resistance which you feel is due to that cause or whether it denotes a tumor. I do not think I can mistake in this instance; although, as there is sensitiveness at this point I can perceive that the muscle contracts. Still I think that there can be no doubt that we have a resisting mass here not due to the contraction of the rectus.

Well, what shall we decide upon now? Shall we at once come to the conclusion that this man has gastric carcinoma? Let us direct attention to some other point. This resisting mass here pulsates pretty strongly. The pulsation is very perceptible to the touch, and from here you can see my finger raised with the pulsation. Well, we auscultate and we find that there is not only one murmur, but there is a double murmur, very distinct, a systolic and a diastolic murmur over this mass. Now, gentlemen, I give you the advantage of my experience with regard to these auscultatory sounds. A good many years ago I saw a case where a tumor had a strong pulsation and a double murmur. The

history of the case pointed pretty strongly to gastric carcinoma, but at that time I had the idea that we never get a double murmur except in connection with an aneurism, and upon that belief I based a diagnosis which was afterward proved to be incorrect, and since that time I have ascertained in several instances that we may have with a carcinomatous tumor not only a single, but a double murmur, such as we have here. Therefore, I throw out that as evidence that we have here aneurism, for the differential diagnosis lies here between carcinoma and aneurism. Well, which is it? I am not ashamed to say, gentlemen, that I am a little cautious in making positive diagnoses, and I think you will find that the longer your experience is the more reserved you will come to be, especially if diagnoses are brought to the crucial test. If you make the diagnosis and have the patient go off, and never hear anything more of it, why, you don't get the experience from your mistakes which you might otherwise get. But take the history of this case, take the persistent gastric symptoms which have existed since November, take the progressive emaciation and loss of weight, I feel very strongly of the opinion that this is gastric carcinoma. I know that both the signs of pulsation and double murmur can be present in a marked degree in cases of carcinomatous tumor. The situation of it is where gastric carcinoma is most commonly found, and yet the situation may vary considerably. But it is most usually situated at the pylorus, as it is in this case.

The tumor seems to be fixed. Sometimes carcinoma of the stomach gives us a fixed tumor, and sometimes a very movable tumor. I have known it to be so movable that with a change of position of the body to the left side the tumor could be felt on that side, and turning to the right side it fell by gravitation away over to the right.

One other point occurs to me with regard to aneurism. With aneurism we generally have pretty constant localized pain, and it is apt to be referred to the back—a boring pain referred to the back. When we find such a pain as that, which has been persistent, localized, it would lead to the suspicion of aneurism. That is not present here. The pain which this patient has is not severe, it comes at times. And I want to make in this connection another comment. Carcinoma in

certain situations is apt to be accompanied with sudden pain, and pain somewhat characteristic, that is, lancinating pain. That quality is in almost all cases characteristic of this pain, especially of pain from carcinoma of the stomach. But it is not unfrequently without pain. It is well to bear that in mind. Without bearing that in mind, you might consider the absence of pain as strong evidence against carcinoma. Pain is not a very permanent symptom, and it may be almost wanting, especially the characteristic, sharp, lancinating pain.

You noticed, gentlemen, that while talking of this patient's trouble in his presence I used a term which he does not understand—that is carcinoma. Had I used the term cancer, he probably would have known what it meant, and it is not necessary nor desirable that these patients should know the true condition of their disease, because it would probably have a very depressing influence upon the mind.

This case, gentlemen, is a case of acute disease, and I bring it before you because, except at certain times, you do not have an opportunity to see many illustrations of it. It is a case of cerebral meningitis, and I suppose also we may say cerebro spinal meningitis—a sporadic case of cerebro spinal meningitis. There can be no question, I think, as to the cerebral meningitis, and the symptoms also point to meningitis of the spinal cord. Now let me read the history, and then I will call your attention to the symptoms without disturbing the patient, as a patient with this disease ought not of course to be disturbed.

He is a boy fourteen years of age, David W., and was admitted on the 20th of April. He stated that he had good health up to about a week before his admission, when his present disease began. Two years ago he had chills and fever. He had a chill about a week before his admission, which was followed by fever and headache, and tenderness of the back. On his admission he complained of severe headache, and pain in the neck, and had very distinct opisthotonos, the head being drawn backward, and so much tonic contraction of the muscles at that time that by putting the hand on the back part of the head the whole body could be easily raised up, the muscles retaining their condition of rigidity. He had photophobia, abnormal sensitiveness to light. He

had herpes labialis. The abdomen was retracted. I dwell on these points because they are all diagnostic. A case presenting marked pain in the head, and fever, the question of course would arise, is it not a case of typhoid fever? Now, except in very rare instances, we do not have a patient with a collapsed abdomen in typhoid fever. We generally find more or less enlargement of the abdomen, tenderness, etc., but with meningitis we do find a retracted abdomen, as was the case here. There was no paralysis. He moved his limbs without difficulty. He had a temperature of 101.75° . The urine was yellowish, cloudy, alkaline; threw down a white deposit; was 1012 in specific gravity; contained no albumen.

Well, on these symptoms the diagnosis of cerebro spinal meningitis was made, and he was treated accordingly. The ice cap was applied to the head; he had a blister to the back of the neck; he was put upon bromide of potassium, thirty grains every four hours, and dry cups were applied to the spine. That was on the 20th. On the 21st the patient was examined with the ophthalmoscope, and was found to have what the ophthalmoscopists call choked disk or ischæmia of the retina. I will leave my colleague, who lectures upon diseases of the eye, to go into detail; but I will simply remark that this appearance of the retina presents a certain significance of cerebral disease, as representing certain congestions intracranial.

He was delirious, but it was not active delirium. The temperature on the 21st was 101.25° ; the pulse was 82, and irregular. An irregular pulse, with other symptoms, points to cerebral disease, of course excluding cardiac disease, which is easily done here. The patient's general condition remained the same. He complained a little less of pain.

On the 22d, yesterday, the temperature in the morning was 101.75° ; the pulse was 76, and regular; the patient was delirious; the abdomen was less retracted; the patient desired food. On the 23d the patient is still delirious; the abdomen is now distended. He lies chiefly on the right side, the legs somewhat flexed. He has some hyperæsthesia. The temperature is 101.25° ; the pulse 84.

There is one feature which is not mentioned in the history, and which is very constant in cerebro spinal meningitis. The patient shrinks from any movement of the

body, or shrinks from being moved, and if permitted will frequently preserve exactly the same position of body for a long time. I recollect one case very distinctly where the patient was allowed to retain the same position precisely for several days, which of course should not have been done, but he declined to have his position changed.

The opisthotonos here is now less. There is slight tenderness here over the spine. The patient shrinks when any pressure is made. The pupils are somewhat large, but equal. They do not contract much on exposure to light; they are insusceptible to impressions of light. The expression of the patient is somewhat characteristic. It denotes pain, suffering and irritability. He wishes to be let alone.

Now, as regards the abdomen, I call attention to that. It is not retracted now. It is very soft, flexible, and pressure upon it seems to give pain. Let us see whether that is due to hyperæsthesia of the surface, which is very apt to be a symptom in cerebro spinal meningitis. No, there seems to be a susceptibility over the abdomen which is not perceived over other parts of the body.

Well, these are the more important points, gentlemen, in the clinical history of this case thus far.

Vesico Vaginal Fistula.

BY DR. JOHN BRADY, GRAND RAPIDS, MICH.

GENTLEMEN—I propose to report a case of vesico vaginal fistula; but, before proceeding with the report, I desire to say something of the history of the subject. The history (says Thomas) dates back only to the sixteenth century, when attention was called to the affection, and a plan of treatment proposed by Ambrose Pare. From this time down to 1852, steady, persevering and systematic efforts were made to devise a means of cure, with only indifferent, partial or an occasional success. As has so often been the case in other great discoveries, the minds of several investigators pursued the same course until at last success was reached. Success once attained, it then became an easy matter for successive investigators or explorers to follow the discoverer in the path which he, perhaps, with much difficulty explored. Not only this, but also to take a course of their own which will reach the objective point. It is now easy to see that the

elements necessary for the cure of the revolting malady under consideration are, first, a means for exposing the fistula to view and manipulation; second, a suture which will remain in place without causing inflammation; and, thirdly, a means of disposing of the urine, and keeping the bladder empty during the process of cure. The means to those ends are undoubtedly the spec-metallic suture and cachetes. For this discovery and the means for making the operation for the cure of vesico vaginal fistula practicable and available to all surgeons, we are under perpetual obligations of gratitude and admiration to our distinguished countryman, J. Marion Sims.

It is true that Dr. Sims was forestalled in all the details of the discovery by which he rendered vaginal fistulæ curable. But only as regards the theory of the matter, and even the theory was but partly or feebly comprehended, until the first quarter of the present century. We find in 1660 Roonyhaysen, of Amsterdam, using a speculum, paring the edges of fistulæ and uniting them with needles, but no mention of a catheter, a most important and indispensable means of success in the operation. Again, in 1720, we see Voelter, of Wurtemberg, employing a needle, needle holder, suture of silk or hemp, and a catheter; but no indication of his having freshened or pared the edges of the opening to be closed. In 1804 Desault used a vaginal plug and catheter in the bladder, and it does not appear that he pared or closed with any sort of suture. In 1812 Naegel, of Wurtemberg, scarified the edges by scissors, used needles to approximate them, but did not employ, and omitted the catheter. In 1817, 1825 and 1829 we find Schregert of Germany, Lallemand and Raux, of France, operating after the methods of their immediate predecessors, modifying but little their methods. Coming on down to 1834 and 1846 we learn that Gasset, of London, and Metzler, of Germany, combined the knee-elbow position, levator perinei speculum, metallic sutures, and catheter permanently kept in the bladder. And notwithstanding they published the successful result of their proceedings, "they failed to recognize the importance of what they had attained, and did not impress its value upon others, so that humanity could profit by it." Hayward, of Boston, in 1839-40, reported

three cases cured by vivifying the edges and closing with silk suture. In 1847 Mettauer, of Virginia, employed the catheter and leaden suture with such success; that he made the following positive statement: "I am decidedly of the opinion that every case of vesico-vaginal fistula can be cured, and my success justifies the opinion." In the foregoing brief epitome it is evident that Sims had many worthy antecedent investigators whose claim to priority of discovery are not without foundation. Still, to Sims the credit of this great discovery is unquestionably due; to him the laurel must be given, because he has won it fairly, and he wears it well. And there is none to question his right to wear it long. He studied the subject until he mastered it—then demonstrated to his medical brethren the intrinsic value and *modus operandi* of the means he found it necessary to employ; taught the philosophy of the operation and the various steps in its performance.

Not only did he do this, but he also published the results of his individual research, experiments, and the cases he had operated on, in terms so clear, emphatic, and encouraging as to leave no doubt in the minds of surgeons of the practicability of the operation and the certainty of curing almost every patient affected with this loathsome disease, *for whom it might be properly performed*. No man, without a proper claim to discovery, could publish and impress the profession so favorably as Sims did. It is unnecessary to say more concerning the proof of Sims' claim to the honor of being the discoverer of this great boon to womankind, for I presume you are all more sensible of the fact than I am, and I only mention it as a sort of prelude to the case which I will now submit.

My patient was a person of sound constitution and good health; indispensable conditions for success in any operation, and particularly prerequisite in this. She is 48 years old, the wife of a farmer, and the mother of ten children. Her labors had all been difficult; some of them very protracted, and all had to be terminated with the assistance of the accoucher. In one of them, sixteen years ago, was produced the fistula, which we will describe presently, but whether by instruments or prolonged pressure we were unable to learn. Subsequently she became pregnant, and the child was de-

livered as usual, by the physician, dead-born. This was her last pregnancy and labor. Five or six of her children were delivered alive and have grown up beyond the years of adolescence. For sixteen years, although in good health and doing her part of the work in a farm-house, her life has been made very unpleasant and distressing. In consequence of the condition of the bladder, every drop of urine escaped about as fast as it entered, no part of it passing through the urethra. The vagina had become eroded, in several places deeply, from the constant contact of the urine; and her limbs were also very much irritated by it, for no means or contrivance served to prevent its diffusion on those parts of the body.

Vesico vaginal fistulæ may be situated in any part of the vesico vaginal septum, and vary in size from half a line to an inch or more. When produced by the protracted pressure of the fœtal head, I think they will generally occupy the trigone or bas-fond of the bladder. The orifice in this case was circular in outline, and about a half inch in diameter, and partly filled with a valve-like plug of mucous membrane that had gradually rolled in from the bladder. Its margin was almost as hard as cartilage, thick, and difficult to pare. I performed the usual operation, assisted by Dr. Chipman, on the 15th of last March. The patient being perfectly under the anæsthetic influence of chloroform, and the parts (objective point) being well exposed to view. Seizing the fistula with a tenaculum, I introduced the blade of a tenotome about two lines from the opening and carried it at this distance entirely around, removing a complete circle of tissue; the surface freshened, was ample for strong and perfect coaptation. Six silver sutures were passed, and closed as neatly as possible. Warm water was then injected into the bladder, but it leaked at one point, which I closed with another suture. A fine sponge of proper size was then inserted into the vagina, as a support to the sutures, with directions to the nurse to remove it twice a day, and to bathe and cleanse the parts with tepid water. A Sims' catheter was then introduced, and some general directions given to one of the family (for there was no trained nurse) as to the care she should take of the patient; and then I left her with no little solicitation for the result. On the tenth day

I called to ascertain how the case had progressed, and found it had done well; the sutures were all in proper place and deeply imbedded in the tissues; not a particle of pus being near them, and the line of union undiscernable from the adjacent parts. The extensive erosions of which mention has already been made were also completely healed. Apparently, the edges of the abraded fistula had united by immediate union or primary adhesion. To be certain that every part of it had firmly adhered, I injected water again, and found no leakages.

I then removed all the sutures and retained the catheter a few more days, after which the patient was able to pass, voluntarily, her urine in small quantity, in short, at frequent intervals. Gradually these grew longer, until the bladder recovered its wonted capacity, and the patient at the present time retains with comfort her urine and passes it naturally.

In conclusion, it might, without exaggeration be said that better success in closing and curing fistula is seldom attained by a single operation.

Report of Electrolysis of Uterine Fibroids from April 31, 1879, to June, 1880.

METHOD OF KIMBALL & CUTTER.

Reported by EPHRAIM CUTTER, Boston, Mass.

THERE has been not much effort made by its institutors to push this operation, it being thought best to let the operation take its own chances. Moreover, as time advances, it was expected that new developments would arise, since the well-known character of these growths is that of time and strong resistance to change of state.

First.—The following case illustrates the fact that a fibroid interfered with by electrolysis may entirely disappear some years afterward.

Case 17. Reported in abstract (*Am. Jour. Med. Sciences*, July, 1878, series 3, arrests partial and complete) as follows: "Resume: large tumor, reduced one-half; menorrhagia and intermenstrual flowing."

Mrs. Allen, 14 Cherry street, Boston, Mass., widow, aged 43 years, was seen on November 5, 1873; three children; for many years has had uterine disease. On examination it proves to be fibroid enlargement, interstitial, irregular and pressing backward against the rectum. She is very pale and languid from

the loss of blood, having suffered from excessive hemorrhages for years, persistent, uncontrollable, at and between menses. The result is that she is decidedly anemic and unable to endure bodily exercise without a sense of extreme exhaustion.

Galvanism was suggested, and with the advice of her physician the battery was brought to bear upon her case on the same date, viz., November 5th, 1873. The electrodes were introduced deep into the fibroid growth—one through the rectum and the other through the vagina. The current was applied five minutes. The effect of the chloroform having passed away, a good deal of pain was felt in the region of the tumor. In about two hours a severe chill was experienced, lasting nearly two hours. It was followed by high fever, thirst and a pulse of 120. Six hours after the operation the pain and fever passed away and the patient spent a comfortable night. The kidney secretion was very abundant.

There were other operations resorted to with effect, as the tumor was reduced one-half in size, and more. The menstrual hemorrhages were reduced to a normal point; the inter-menstrual flowing was checked; general health was restored.

In 1879, Dr. Kimball, whose patient she was, accidentally saw her, and on examination found the tumor entirely gone. Subsequently the writer verified the diagnosis. In December she was presented to the Gynecological Society of Boston as cured. In January, 1880, Dr. J. Marion Sims kindly examined and pronounced her entirely cured.

Remarks—The relation of this case at the Gynecological Society occasioned the remark by a former vice-president of the American Medical Association, that in his opinion the dissipation was due to natural causes; that many fibroids of the thousands he had seen went off of their own accord. But Dr. Kimball, Dr. Sims and many others that I have since met say that they never knew of more than one in one hundred so disappearing. So far as I can learn, the gentleman who made the remark is quite alone in his experience. We think he should give it to the profession.

This history shows that a profound impression was made, and, in our opinion, it is not forcing the matter to infer that the galvanic current had a large share in bringing

on the favorable result. When we remember how long it took for this enlargement to grow, how that the current is supposed to act, not by burning or direct chemical influence, but rather by influencing the nutrition so that the normal balance of its processes is restored, we think that it is reasonable to expect it will take a long time to dissipate them by any means. Indeed, a rapid cure on these grounds would seem impossible.

Second.—Some other cases have shown a diminution since the last report.

Dr. Kimball reports one case of a large fibroid that he attacked with the battery. One operation made the patient very sick, so much so that her life was despaired of. She was confined to bed with the symptoms of peritoneal inflammation for months. This was at Haverhill, Mass. She was carried home to Baltimore on a litter. Afterwards she gained rapidly and was convalescent, but suddenly she died from some affection of the heart. In this case the growth entirely disappeared.

Dr. Kimball also reports another case which he saw in consultation with another physician. It was a small, mobile, central, interstitial fibroid. Galvanism was advised by Dr. Kimball and applied by the consultant a few times with the result of a speedy and permanent cure.

The full history of one is as follows:

Case 33 of the series. "Large fibromyoid, multilobar, abdominal, pelvis packed, dysmenorrhœa, metrorrhagia, severe nocturnal colics, inability to lie on left side, pale, thin, anemic. Result: May, 1878, tumor diminished one-third; colic, constipation, emaciation, dysmenorrhœa, hemorrhage, decubitus and loss of appetite cured."

Miss Lucetta Tyler, of Stoneham, aged about forty years. "Large multilobar fibromyoid, existing for 15 years. Tumor occupied the abdomen from pubis to beyond the umbilicus, and up to the left hypochondrium, and packed the pelvis. She complained of excessive pain in the left lower abdomen, particularly at night after going to bed. This pain occurred every night without fail, and often was so severe and serious as to necessitate the presence and assistance of her family physician. Frequent micturition, especially at night, thus breaking up sleep; constipation, pelvic pressure, excessive and exhaustive uterine hemorrhages, loss of appetite

and a loss of her hold on life, so much so, that she had made her will, and about given up to die of despair. Her physician, Dr. William F. Stevens, of Stoneham, called my attention to her case, and in July, 1874, I found the pelvis packed with a fibroid as hard as a rock. The digit could penetrate the vagina only a little way, and in the rectum it encountered the growth readily. In the abdomen there were several lobes of varying sizes, ovals and ovoids, all movable to some extent. In the left iliac region, where she had the severe nocturnal colics, was the largest lobed oval; measuring 3 by 4 inches. Patient's appearance was bad, and like a woman at full term of pregnancy; pale, spare, thin, anemic. She was advised to make trial of electrolysis, and was fully informed as to the experimental character of the operation. The risks were stated and fully understood. July 28, 1874, the battery was applied for five minutes. One electrode passed through the rectum into the pelvic portion of the growth, and the other into the largest lobe found in the abdomen. Ether used. She came out of the operation with no apparent results, save being at once relieved of pressure on the bladder and rectum.

"August 4th, 1874, the operation was repeated. She measured 27 inches about the navel, and 29 over the most prominent part of the abdomen. This operation was more marked in its effects. She had slight fever with tenderness and soreness of the abdomen, which confined her to bed for a few days; these symptoms passed off with no bad effects.

"On Nov. 24th, 1874, she was again seen and reports to-day the following improvements in her condition: She feels perfectly well in every respect, her clothes come together two inches less in size—that for the last twelve, if not for twenty years, she has been the subject of abdominal cramps very severe and hard to bear. Since the last operation they have wholly disappeared; menstruation has now become painless; appetite has returned and is good; her night sleep, which before was troubled and inconstant, has now become constant and continuous. She can now lie upon her left side, which was impossible before; she feels more like work, and is working more than ever before Growth diminished."

The reaction in this case was marked and gratifying. It is a great thing to improve the demoralization of any patient. Feb. 4th, 1875, she reports her general health better than for three years past; works hard at dressmaking; appetite, strength and flesh, good; tumor has risen and is more distinct. The patient was etherized, and the battery was applied for seven minutes, in the presence of the Dr. Stevens, of Stoneham. One electrode was passed into the growth through the vagina, and the other through the left side of the abdomen. No ill results ensued.

"Fourth operation, Feb. 17th, 1875. Abdomen more enlarged; it measured 31½ inches over the most prominent part. It is doubtful whether this enlargement was due to an increase of the tumor, as she had gained in flesh. Her diet eschewed flour and starches. At 2.30 p. m., in the presence of Dr. William F. Stevens, one electrode was passed into the tumor through the vagina, and the other into the left part of the left inguinal tumor. This lobe was more mobile than ever before. The current was passed for seven minutes. The immediate effect of this application was more marked than that of the previous ones. The vaginal puncture bled severely for a short time and then ceased. There were severe chills, and the pulse rose from the normal standard to 120, fever, great tenderness of the abdomen near the side of puncture, thirst—and indeed all the signs of severe peritonitis were present. These symptoms were energetically treated with a large number of leeches applied to the abdomen, warm fomentations, blisters, veratrum viride, stimulants. After a short time she recovered." The record reads: "Dr. Stevens is very much pleased with the marked improvement in this case. The rejuvenation he regards as very remarkable. The summer months of this year were spent at Nantucket; on her way thither she reported. She looked and appeared in perfect health. The tumor was diminished in size."

"In July, 1876, she went to the Centennial Exposition, at Philadelphia, and bore its fatigues of excitement and sight-seeing better than two healthy young ladies who were her companions. Thence she went on a visit to Illinois and Michigan, returning by Montreal and New Hampshire. She arrived home with unimpaired vigor, and now claims that she is as well as any one. During this

excursion, occupying two months, she often had occasion to ride over rough roads in farm wagons without springs, yet says she suffered no inconvenience, and felt well every day. Twenty-eight months ago she was a suffering invalid, growing worse every day." (Letter of Dr. William F. Stevens, since deceased.)

"The immunity from pain continues, bowels regular, menses natural, spirits remarkably animated. She has no hesitation in attributing her improved physique and morale to the interference of electricity. She prosecutes her profession of dress-making vigorously, and works very hard. The growth remains diminished. It may be noticed that the vaginal puncture in the last operation was followed by considerable hemorrhage. The question of preference of the site of puncture in pelvic growths, may perhaps be partially decided by the experience in this case, as there was no trouble when in the two first operations the punctures were rectal. It is then probably better to make the electrodic penetration through the rectum. Other cases show this also. *Mobility*.—It has been generally found that the electricity increases the movableness of the fibroids." (Report of July, 1878.)

On Dec. 1, 1879, I found her in. She removed her clothes and went to bed. Upon a very careful examination I discovered a small nodule, half way between the pubis and the umbilicus; also another small growth hard as ever behind the rectum. All else of this formidable tumor had disappeared.

Case 36, same series.—Pelvic and abdominal fibromyoid diminished by one operation of 15 minutes. Afterwards the large abdominal lobe became cystic. Aspiration of purulent chocolate colored liquid. Percutan galvanism, diminution; operation July 31st, 1876, one electrode through the rectum and one through the abdominal walls. The tumor diminished, but in 1879 it took another rapid diminution, so that in January, 1880, on a careful examination it was reduced to perhaps one-third its former bulk. Meantime the general health was unusually good. She had gained in flesh and looks, and one could hardly recognize her who had known her only during her illness. February last she spent in Washington, D. C., and in May sailed for Europe on a pleasure tour.

Third.—Per contra we have to report that

case 32, reported as large interstitial fibroid, much diminished at the outset, vaginal discharges of detritus; improved health and strength; flooding checked; able to do more work than before; has had a return of the disease. The tumor has increased to its former size. The patient, however, keeps in charge of a large millinery shop and overworks herself. To this fact we are inclined to attribute the increase of the growth. In our opinion the body systemic is like a large machine shop. To do work and run the machinery it takes force, call it what you may. In another respect the body is more than a machine shop, as its own force has to repair and rebuild itself all the time. In the machine shop, if all the force is employed in one set of operations, evidently there will be none left for the rest of the work. In the body systemic it takes work to simply run, so to speak, the various organs. If the patient use up all her force in millinery, for example, she will have none left to run the fibroid uterus, hence the laws of the body systemic may run riot in heterologous tissue, which includes fibroids among others. Be this as it may, it is well agreed that there is a limit to all human body forces.

Case 34.—Mrs. C. Russell, Dexter, Me., reported as "large abdominal fibromyoid, tri-lobed. First application caused a diminution, after the second hemorrhages were checked and health restored; subsequently a recurrence; another operation with good results." March 2d, 1875, a case of long standing. In January, 1880, she had the fourth operation, present Dr. J. Marion Sims, of New York; Dr. G. Kimball, Prof. Reynolds, Harvard Medical College; Prof. Baker, do.; Drs. M. G. Wheeler, of Chelsea; Marcy and Norris, of Cambridge, etc., etc. Tumor was hard and dense. Current passed 10 minutes.

There was probably too much current given in this case, as the after effects were too severe. The patient has not been so well since.

Remarks.—The time of the passage of the current is a difficult thing to judge of correctly. From what I know about it, I should say that four to five minutes was ordinarily enough. Still, one must be governed by the case. Some bear a much longer time well. For example, a new case of the past year showed so much resistance that on January

3d, 1880, I gave her fourteen minutes' current; January 9th I gave her 19 minutes' current. February 27th, 1880, I gave her twenty minutes' current while she was flowing. She had menopaused. One electrode was passed through the vagina and one through the abdomen. Her physician, Dr. Douglas, of Amesbury, Mass., said this application took hold of her more than any other. Some fever and soreness for two days, but the flowing was almost checked, and she had no trouble.

April, 1880, gave her twenty minutes' again. The result, so far, has been a visible diminution and hardening of the growth.

Remarks.—This case had the longest applications ever made to my knowledge in the history of this operation. I was guided by the symptoms of the case, its action under the current, and by the feeling that if anything was accomplished it would be by pushing the current. Still, I wish to be understood that I ordinarily would advise only a five-minute current.

In April, 1873, Miss Fitts, of Haverhill, was operated on; current continued only three minutes; subsequently she had two more applications of five minutes each. These short applications were followed by a complete cure, which remains to date. The effect was profound in this case, perhaps much more than the effect of twenty minutes' current on the patient referred to. Another feature of this latter case is that it had been experimented on with a modification of the original mode and did not yield, while with both needles put into the tumor it did yield. This introduces the question again as to the proper mode of conducting this operation.

Case 27 of the series, reported as above. Resume: entire disappearance, probably fibro-cystic. Reappearance and disappearance after another application May 28th, 1880. Now reports that tumor has reappeared, but not to the former extent. It is quite small. The general health is in no way interfered with.

At the May meeting of the Gynecological Society of Boston, Dr. M. G. Wheeler, of Chelsea, Mass., presented a large tumor that he had removed from the abdominal cavity of a woman. It was sarcomatous, about six inches in diameter, lobated with the fissures connected. Its feel was semi-soft. There

were certain symptoms that called for immediate action and he cut down on to it with the idea of its being a pediculated fibroid, but it proved to have no connection with the uterus whatever, and was a part of the greater omentum. The patient recovered. The case is of interest here as showing the difficulty of the diagnosis of uterine fibroids. Two cases have died the past year that illustrate the natural history of a uterine fibroid. In one the patient was about 45 years old; tumor had existed for twelve years; it was large, many-lobed and dense, and occupied the pelvic and abdominal cavities. About one year before death she moved into a house that had stood vacant during the winter and she took cold. Previously she had experienced no difficulty from the fibroid, had borne children and worked hard. But now the growth took on a malignant character which involved the uterus and vagina, particularly on the anterior aspect. It almost closed up the orifice of the urethra. The induration here was of a stony hardness; vomiting was incessant. If we can judge anything from this case, it shows that fibroids are not the harmless things that some would make them to be. The other case died from the results of hemorrhage.

Some claim that with one needle inserted good work can be done, and it is undeniable that it has been done. Witness Dr. Bixby's case published a year or two ago in the *Boston Med. Jour.* It is not my intention to wage a controversy but rather to tell what has been done by this mode as first adopted, and let it take its chance with others. We give the history for what it is worth. We stand by what we said in 1877, page 35, *MMS.*: "But we do not insist upon our ideas being carried out to the letter. We are willing to yield the point and say that our battery and mode are not the best, whenever any one will produce the favorable results that we are happy to record, by any other battery."

The cases that we have submitted are only the entering wedge, or rather the breaking-up plow in the fallow ground.

Nor are we set in our notion that this is the only way to treat fibroids. There are others. At some future time it may be permitted to speak of them.

We believe such a formidable organic disease as fibroids that project from the uterus

into the cavity of the abdomen, if not amenable to one means of cure, should be tried by others.

In conclusion, we may state briefly that Dr. J. Marion Sims says that his son, in California, has cured six cases of fibroids by electrolysis.

No. 5 Somerset street, Boston, Mass.

On the Importance of Ascertaining and Correcting Errors of Refraction in some Diseases of the Eye.

BY DR. W. N. SMART, GRAND RAPIDS, MICH.

THE object of this paper is to call attention to the importance of ascertaining the refraction of the eye in some of its diseases. I do not expect to offer any new information, but merely to call attention to a subject, the importance of which will justify some repetition. If any further excuse were needed, it would be found in the fact that this condition is so frequently overlooked and given little or no treatment.

By refraction of the eye we understand its refraction in the state of rest; that is the refraction or power of bending a ray, which the eye possesses in virtue of its form and that of its component parts independently of muscular action. The term, therefore, applies to the refraction of the eye whose muscles of accommodation are inactive or paralyzed. We call the refraction of the eye normal when, in the state of rest, it brings the rays derived from infinitely distant objects (or rays that are practically parallel) to a focus exactly on the anterior surface of the layer of rods and bulbs of the retina. Consequently the refraction of the media of the eye at rest can be called normal in reference to the situation of the retina only when parallel incident rays unite on the layer of rods and bulbs of the retina. Such an eye is called an emmetropic eye. Any departure from this form of eye would constitute an error of refraction.

Errors of refraction are very important factors in the etiology of many diseases of the eye, among the most important of which is strabismus. Three-fourths of all cases of squint are found to have marked errors of refraction. If we deduct the cases due to accident, opacities of the media and paralysis of the muscles, we will find the proportion very much greater. Strabismus is not an independent morbid condition; it is a symp-

tom dependent on different conditions, and as such connected with other very different phenomena. Mothers and nurses frequently attribute strabismus to accidental causes, such as fright, habit, etc.; but, the fact that almost all cases of strabismus have some error of refraction that existed before the strabismus was acquired, and the fact that the squint is acquired as soon as the child begins to use the eyes for near objects certainly points to relation of cause and effect between the ametropia and the squint.

A little study of the mechanism by which accommodation is accomplished, will convince us that this is true.

A certain relation exists between the accommodation and the convergence of the visual lines. Just in proportion as accommodation is used, the power of convergence will be called into action. The hypermetrope in order to see distinctly must use a comparatively great amount of accommodation; this holds good for all distances. Even in looking at remote objects he must endeavour to overcome his hypermetropia by tension of accommodation; and in proportion as the object draws near he must still add as much accommodation as the emmetropic eye would require on the whole; but, he does not require any increased effort at convergence; so that with an object at the distance of fourteen inches, the eye requires as much effort on the part of the ciliary muscle to give distinct vision as the normal eye exacts at seven inches, while the amount of convergence required is the same as in the normal eye (or for fourteen inches). We find that nature will many times keep up the co-ordinate action of the two muscles, even at the expense of binocular vision, so that the convergence will be exerted to the same amount as the accommodation (or for seven inches), while the object is at fourteen inches, and as the result we, of course, have convergent squint.

In myopia where the visual axis is longer than in the emmetropic eye the exact opposite of this would be true. In order to get clear vision in any great degree of myopia the object has to be brought so near the eyes as to require a great effort at convergence, while no tension of accommodation is required; and the tendency is for the eyes to deviate outward, a condition which clinical experience shows to be true. With very few

exceptions we find convergent squint associated with hypermetropia, and divergent squint with myopia. The first step then in the rational treatment of strabismus would be to ascertain and correct the errors of refraction, and if this be done early enough, or before the squinting has become a fixed habit, it will generally restore binocular vision, a result very rarely, if ever attained by tenotomy.

Even in cases of longer standing, we can sometimes succeed by correcting the error of refraction and carefully exercising the muscles by the use of prisms, thus gradually teaching the eyes a correct habit, as they formerly had learned the vicious one. I wish to again call attention to the fact that where we succeed by this method, the patient gets the benefit of binocular vision, whereas after strabotomy he rarely or never uses more than one eye at a time.

Next in importance is asthenopia, a condition perhaps oftener overlooked or mistreated than any other condition of the eye. By this term we mean the inability of maintaining the adjustment of the dioptric apparatus for short distances without pain and blurring. The eye has a perfectly normal appearance, its movements are undisturbed, the convergence of the visual lines presents no difficulty; the power of vision is usually acute, but after using the eyes for close work, by artificial or poor light, the objects after a time become indistinct and confused, a sensation of tension and fatigue comes on, especially above the eyes; the person so affected often closes his eyes, pressing them firmly with the hands; after a few moments' rest he again sees distinctly. In attempting to use the eyes again the same phenomenon is developed as before, only more rapidly. If, notwithstanding the inconvenience which arises from the effort at close work, the person persists in his effort to use the eyes, the symptoms progressively increase. The feeling of tension above the eyes gives place to actual pain; sometimes even slight redness and a flow of tears ensue. It is remarkable that pain in the eyes themselves, even after continued exertion, is of rare occurrence. Sometimes the pain is so much more prominent than the other symptoms that the latter are entirely overlooked, the patient, when questioned, asserting that his eyes are all right. Nor is the pain always confined to the imme-

diate vicinity of the eye, but sometimes extends over the head as far as the occiput, and sometimes even down the back; and may be accompanied by dizziness, a sense of malaise, and even of nausea. Cases of the latter class are generally mistaken for neuralgia, and sometimes even for disease of the brain, as in the following case:

Miss C., aged 28, occupation that of saleswoman, consulted me in December, 1878, for pain beginning over the eyes and extending back over the head and as far down as the angle of the scapula. She complained of some burning and smarting of the eyes after reading or sewing a little while, slight dizziness and nausea; pain so severe for past few months as to prevent sleep during the early part of the night. General health had always been good. These symptoms were first noticed three or four years previous, since which time they had gradually increased. About a year before she first came under my observation, the patient sought the advice of a prominent physician, who treated her for neuralgia, and also gave her an astringent wash to use for the eyes, and as this did not relieve the smarting, he told her the optic nerve was diseased. Pain steadily grew worse in spite of active medication for nearly a year, when her physician informed her he feared serious disease of the brain. On examination with ophthalmoscope, I found the retina of both eyes normal. Can read, with both eyes, number 20 Schnellen's test type at 20 feet distant, or as far as normal eye. Vision *not improved* by any glass; sees equally well with number 30 convex lens, but any glass stronger than this produces indistinct vision. Insufficiency of the external recti, three degrees. After paralyzing accommodation can read number 20 Schnellen with convex glass number 14, showing that this corrects the error of refraction, and that any glass much weaker than this would fail to give relief. I prescribed number 16 convex prismatic, three degrees. Within a week after wearing glasses all symptoms disappeared, and there has since been no recurrence of trouble.

In this case the headache was the most prominent symptom, the indications of eye trouble being so slight as to appear of secondary importance. This case illustrates another point, that is, that it will not do to accept the patient's statement that there is

no defect of vision, and conclude that there is no error of refraction; nor would this conclusion be safe in hypermetropic persons under 30 years of age, even though with the weakest convex glass vision is rendered less distinct.

Not only may the hypermetropia be entirely latent, but the tension of accommodation may be so persistent that the patient will insist that vision is not only rendered poorer by any convex glass, but improved by a weak concave glass. If we accept the patient's statements in such a case as this, and prescribe a weak negative glass, we only add to the trouble.

In other cases the hyperæsthesia of the retina and ciliary body is so great that it is impossible for the patient to look at an object for more than a few seconds; and at times so great is the sensitiveness of the retina that the patient can hardly be induced to remain in a room that has not been darkened. The following is a case of this kind:

F. H., aged 8 years, was first brought to me for treatment in August, 1878. General health always good. Had suffered considerably with the eyes while attending school the previous summer, but had had but little trouble during the winter while out of school; on resuming school, in the spring, had again had trouble, which had increased till his eyes became so painful as to compel him to leave school shortly before consulting me. When I first saw him, the boy kept his eyes covered with his hands most of the time, and while in my consultation room, when left alone for a moment, would throw himself face downward on a couch, burying his face in his hands. The conjunctiva was a little congested, and the retina appeared a trifle redder than normal; otherwise the eye seemed healthy. Could only read number 2 Schnellen at 20 feet, and the effort to do this caused so much pain and lachrymation that he could hardly be induced to make another effort at reading. A convex lens of $4\frac{1}{2}$ inches focus enabled him to read number 20 at 18 feet. Glasses of this strength were prescribed to be worn constantly when awake, and his mother was directed to bring him back in three weeks. When he returned at the end of this time, nearly all symptoms of asthenopia had disappeared, and the patient has since attended school most of the time without further inconvenience. In this

case the power of accommodation was quite limited, and the tension demanded so great that the muscle very early became exhausted, inducing a very unusual degree of irritation. Here, too, though the patient was young, nearly all of the hypermetropia was manifested, the weakened muscle being able to sustain only a slight amount of accommodation.

There is another class of cases where the refraction of one eye is normal while in the other the error is considerable. Where this condition is congenital it does not often give rise to asthenopia; but where it is acquired and especially if caused by accident—complicated as it frequently is by slight opacities of the cornea—it is very apt to be the occasion of a form of asthenopia which requires a great deal of care and attention to relieve.

The case of Miss M— belongs to this class.

When a child she suffered from some form of keratitis, which left a very slight central opacity of the cornea on the left eye. While attending school at the age of sixteen she began to suffer from violent headache, which ceased only after the removal of the patient from school. On returning to her studies after a few months absence from school, headaches occurred at intervals, increasing in frequency until the close of the school year, when during the vacation a partial respite followed. For a period of two years the same result followed attendance on school, which finally had to be abandoned. During most of this time the patient's general health was poor, she being extremely anæmic. The headaches were supposed to be the result of general condition of health. Under treatment her general health soon improved and she suffered from headache but little except after prolonged use of the eyes. She received treatment for neuralgia, but it afforded no relief. At this time her general health was good, but reading fifteen or twenty minutes brought on severe headache, pain beginning over the right eye and lasting frequently 24 hours.

She was then sent by her physician to an oculist, who found a slight degree of hypermetropia in the right eye, a small central opacity of the cornea with a high degree of astigmatism in the left. Insufficiency of the internal recti four degrees. He prescribed a

convex glass which corrected the defect of the right eye only; advised no treatment for left eye on account of vision being so much impaired by opacity. This afforded almost entire relief for two years, when pain recurred, principally over the left eye, on any prolonged use of eyes. This gradually increased until June, '79, when she consulted me. I found opacity as before; no insufficiency of recti; vision $\frac{20}{100}$ with left eye. With concave cylindrical glass of eight inch focus, combined with convex spherical glass of nine inch focus, vision $\frac{20}{20}$. I prescribed such a glass for this eye, while for the right I made no change. On use of this glass pain ceased and so far there has been no recurrence of it.

Astigmatism is the cause of a class of cases not usually described under the head of asthenopia, where headache, inability to apply the mind, dizziness, slight symptoms of chorea, and other nervous phenomena are the leading features.

Astigmatism may be simple or complicated by other forms of ametropia. Where the latter is the case the astigmatism is very apt to be overlooked and the correction made for the other form of ametropia only. This was the case with Mrs. M., who consulted me in the spring of 1879. She had myopia of $\frac{1}{2}$ which she had had corrected several times by opticians. She was then wearing No. 6 concave with which vision in the left eye $\frac{20}{20}$, and in the right $\frac{20}{20}$. For a year or so previous she had been suffering from repeated attacks of headache, gradually increasing in frequency and severity. I supposed her right eye to be so defective as to be of little value. I found the myopia to have been accurately corrected, but there was a myopic astigmatism of the right eye of $\frac{1}{4}$ axis 75° , and in the left eye of $\frac{1}{8}$ axis 150° . When this was corrected vision was $\frac{20}{20}$ in both eyes. The glass correcting the astigmatism was given her, which caused all troublesome symptoms to disappear. A month afterwards the patient was greatly surprised at finding, as she expressed it, her poor eye better than her good eye.

Many of the most intractable diseases of the lids are found to be complicated by and dependent on some errors of refraction, and will resist all our efforts at cure until these are corrected. The continual muscular strain keeps the tissue congested, and if by giving the eyes rest and proper treatment

we seem to have accomplished a cure, and again allow the patient the free use of his eyes we are surprised and disappointed to find that the trouble gradually returns. This condition is well illustrated by the case of Walter H., aged 20 years; occupation that of a dry goods clerk. Had been in the habit of reading several hours daily, usually by lamplight. First applied for treatment in June, 1877, complaining of symptoms of chronic catarrhal conjunctivitis. No blurring or marked fatigue on use of eyes; vision always good; granular lids in both eyes; apparent hypermetropia $\frac{1}{8}$. Advised cessation of reading for a time, and gave treatment for granulation, which soon disappeared, the conjunctiva assuming a healthy appearance. Owing to accidental circumstances the patient did not resume reading for some time after treatment ceased, during which time the lids remained healthy; but after a few months use of the eyes the trouble gradually recurred, and the patient again applied for treatment in the summer of 1878, when the disease again soon disappeared under treatment. With ophthalmoscope I found his eyes hypermetropic. As the patient was unable to spend sufficient time for an accurate determination of the error, I advised him to use a glass which somewhat over corrected the apparent defect. This gave relief for several months, when the old symptoms began to recur. I now made an accurate measurement of the refraction of the eyes and found the hypermetropia $\frac{1}{4}$. I directed him to wear a convex glass of ten inch focus, and gave no other treatment. Symptoms soon disappeared, notwithstanding continued use of eyes, and up to present time there has been no further recurrence of the trouble.

That very intractable disease blepharitis ciliaris is very frequently dependent on some form of ametropia, and all efforts at cure will be unavailing until the proper correction is made, when we will frequently have the satisfaction of seeing the unsightly redness of the margin of the lids disappear.

Drs. Hatfield and Park (*Chicago Med. Gazette*) say that the greatest curses of the modern medical profession are: "(1) The abuse of medical charity. (2) The heresies which engender jealousy and disastrous rivalry, and the jealousy which breeds discord and strife, partisanship and heresies."

The Direct Abstraction of Heat as a Method in the Treatment of Typhoid Fever.

BY STILES KENNEDY, M. D.,
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HISTORICAL.

ALEXANDER the Great, after one of his extraordinary marches, denuded himself, plunged into the River Cyndus, and was seized with a disease of which he nearly perished. The symptoms are described with sufficient precision, as follows: "Scarcely had he entered before his limbs were taken with a severe shivering; then paleness overspread him, and vital warmth left almost his entire body. The attendants took him up, breathing with difficulty, in their arms and carried him, not in full possession of his mind, into his tent."*

For twenty centuries, almost every doctor of medicine or philosophy who has written on the subject has mentioned this exploit of Alexander, to exemplify the dangers of the direct abstraction of heat from the human body when it is above the normal temperature. Without stopping to detail their various theories, and thus add another volume to the ample records of human error, it is safe to state that the general belief has been, if it is not now, that Alexander's disease was produced solely by two concurrent circumstances: 1. The great heat of his body. 2. The immersion in cold water. A careful consideration of *all* the circumstances attending this adventure will, it is believed, lead to another conclusion.

The Persians had threatened to burn the city of Tarsus, the capital of Cilicia. To prevent this, it was necessary in the first place that Alexander should reach a certain pass in Mount Taurus, before it was occupied by the enemy, that he might enter the province at all. The march was a forced one over difficult roads, full of defiles. The march was successful and the pass occupied, but the great object, the saving of the city, was still to be attained. The army was still hastened forward with greatest possible celerity, over every obstacle. After several days the city was reached and saved.

There are many in our day who can tell how terribly exhausting to the human system are these prolonged and forced marches,

and there are still many who have had opportunities and who testify how much more exhausting it is to carry great responsibilities in war than it is to carry pike or sabre. Alexander shared alike with his soldiers the physical difficulties of the march, but the great burden of responsibility was peculiarly his own.

It is not likely that, immediately on reaching the Cyndus, Alexander jumped into its current. It is much more reasonable to suppose that he sat a while upon its banks, under grateful shades and amidst gentle winds, giving directions as to the distribution of his army for its own protection and comfort, as well as that of the city for which he had made such an extraordinary effort. Probably one or two hours passed before he stripped himself of his clothes, wet with perspiration and filled with dust, and plunged into the river. Then the circumstances attending this bath are as follows: (1) Alexander, exhausted by long continued toil and responsibility, (2) while cooled, (3) immersed himself in cold water.

I have carefully examined every case of the disease of which Alexander was seized that I can find on record, and in every one there is incontestible proof or reasonable supposition that the persons were exhausted by fatigue, and cool, when they went into the water.

It is mentioned by all the historians, that the severe athletic games of the Roman youth were performed near the banks of the Tiber, that the contests were carried on with all the vehemence of emulation, and that the participants, burning with increased heat and reeking with perspiration, pitched themselves headlong into the river. We are told that this custom, which was maintained for many decades, gave the men of Rome hardy and powerful constitutions.

One of the most singular things in the history of human reason is, that the error connected with the adventure of Alexander on the Cyndus should be handed down through two millenniums, from generation to generation, as an heirloom to be bequeathed to succeeding posterity, while the story of the Campus Martius, re-enacted daily for a long time by thousands upon thousands of men, should fail in all the list of centuries to correct the error as to the cause of Alexander's disease. It is true that at rare intervals the

*Vixque ingressi subito horrore artus rigere ceperunt; pallor deinde suffusus est, et totum, propemodum corpus vitalis calor reliquit. Expiranti similem ministri manu excipiunt, nec satis compotem mentis in tabernaculum deferunt. Quintus Curtius, Lib. III., C. V.

erroneous theory has been questioned, but the prevailing opinion has invariably been in its favor, and to-day a large majority of Americans view with suspicious fears the abstraction of the preternatural heat of the body by immersion in, or aspersion of cold water. The therapeutic value of cold baths in febrile diseases was first brought into notice in Europe by J. G. De Hahn, in 1787, but fell into disuse after the epidemic of that year, probably because little was known of the conditions and circumstances which could insure its proper use. Dr. Wm. Wright, of Edinburgh, revived the practice again in 1768; but it was not until 1797 that anything of real merit was published on the subject. In that year, Dr. James Currie, of Liverpool, published his reports on the use of cold water baths in fevers and other diseases. He gave the first specific directions for its safe application. For a short while the practice had many advocates among the distinguished physicians of that time; when it gradually fell out of use.

In this country few physicians have advocated its advantages in febrile diseases. Dr. Hiram Corson has frequently, during the past twenty-five years, called the attention of the profession to it, and the writer has more than once mentioned in medical journals the use of cold baths in the treatment of diseases, especially scarlet fever.

Hallman, Niemeyer and a few others in Europe have continued to use cold baths in a few diseases, but in a restricted form that robbed the plan of its potency.

To E. Brand, of Stettin, is due the latest revival of this method of treatment. His work, published in 1861, advocates the bold and vigorous use of cold baths in typhoid fever. This work incited the principal physicians of Germany and Europe, to use the cold bath in typhoid fever, and the statistics of the past twenty years leaves no possible doubt in intelligent minds as to its vast superiority over other methods.

PHYSIOLOGICAL.

There is no longer any question that the source of heat in the body is the combustion, by means of the oxygen of respiration and the carbon and hydrogen of the food taken, or of the tissues themselves. This combustion takes place in all the tissues, viscera and muscles. The most efficient means of preserving temperature aside from food

taken, is by muscular exercise and mechanical protection. The principal means possessed by man for resisting an excess of heat are found in the phenomena of perspiration and evaporation which takes place in the lungs and on the surface of the skin. Dry heat is more easily supported than moist heat. A man may walk about in a dry chamber heated to 212° F. for a limited time unharmed, while if he plunged into a bath of that temperature, by the time he could be dragged out he would be fit for the table of a cannibal king. The truth is that the greater the heat of the body, the greater its capability of enduring cold, and the contrary proposition is also true—the cooler the body below the normal standard the less it is able to withstand the impression of cold. The heat produced by the tissues being in proportion to the activity of the organs it is evident that the nervous influence by which the functions are performed modifies the production of heat to that extent. We know that a paralyzed limb is colder than one in health.

The relation of the great sympathetic nerve to heat production is not determined. It is the opinion, however, of C. Bernard that this nerve is not simply a vaso-motor nerve, thereby influencing the calibre of blood vessels, but that it has a direct influence on the chemico-physical phenomena which take place in the tissues.

Again in febrile affections there is an increase of heat followed by increased activity of circulation and respiration and combustion in the tissues.

ETIOLOGICAL.

Our treatment of every disease depends largely upon what we consider the cause of the disease. Consequently, the treatment of any disease is as various as we judge the cause of it to be, one thing or another. A classification satisfactory to a large number of the medical profession places typhoid fever among the miasmatic contagious diseases. And yet it is not pretended that this disease is purely miasmatic, nor that it can be transmitted directly from person to person. The *real cause* of typhoid fever is the specific typhoid poison, and this is derived from the typhoid fever patient, through some of the excrements. The decomposition of these excrements with other vegetable and animal matters develops the germ or

germs of the disease. They enter the body in the water we drink or through the air we breathe. If we have no poison germ the decay of vegetable and animal matter will not produce this disease. The germ must develop, and the miasma in question furnishes the home for development, growth and multiplication. After being taken into the system some further development takes place, for the period of incubation is reckoned at three weeks.

PATHOLOGICAL.

The *characteristic lesions* of typhoid fever are found in Pyer's patches, the solitary glands, the mesenteric glands and the spleen. In some degree lesions of these organs are always present, and they follow along a course more or less regular without the symptoms necessarily indicating the extent of the trouble.

During the first few days the patches and solitary glands become infiltrated, the surrounding mucous membrane is congested and swollen. This process goes on gradually until about the twelfth or sixteenth day, when a number of the patches will become necrotic. Those patches that do not die will take on a retrograde movement, and the excessive elements are after a while absorbed.

During the third week the enlarged and inflamed patches slough off and leave the typhoid ulcers, which clean and heal during the next week or two. While all this is going on, the mesenteric glands become swollen. They mostly attain the size of a hazel nut. The gland and surrounding tissue is congested and inflamed. This condition gradually subsides and the new growths are absorbed. The changes in the spleen are analogous to those already mentioned, a hyperplasia of the cellular elements. The enlargement begins the first week, increases the second, holds its own the third, and declines the fourth week. It may become two or three times as large as it naturally is. These lesions constitute the local disease of typhoid fever and are supposed to represent the direct effect of the typhoid poison. It is assumed, however, that the poison is taken into the general system, and so constitutes a general disease. There are certain lesions ascribed to the general disease, which, in practice, I consider of more importance than those mentioned, but they are not peculiar to typhoid fever. They are found in all dis-

eases where there is a high degree of body temperature maintained for any considerable length of time. They occur more frequently in typhoid fever, because in the general course of this fever a preternatural heat is kept up for a longer period of time than in other diseases. The prominent symptoms of typhoid fever are due to the lesions of the general disease. The great majority of deaths are due to these lesions and not to the intestinal disease.

The lesions of the general disease consist in *degeneration of the tissues of different organs*, the liver, kidneys, salivary glands, pancreas, voluntary muscles, muscles of the heart, and the brain. The change is the same in each of the organs which ever may be attacked; it is a slow death of the cellular element. The cells become granular, lose their shape, and, unless retrogression takes place, lose their cohesion and break down into a formless mass.

Of these lesions of organs, those of the heart and brain deserve especial consideration. It may safely be said that they are present in nearly all typical cases of typhoid fever; that is, cases of average duration and severity, and the lesions are undoubtedly due to excess of temperature or fever. The degree of degeneration corresponds to the degree of functional disturbance observed before death. All patients who die of typhoid fever without complications, die of *paralysis of the heart* or *paralysis of the brain*, and many of the complications are also due to the increased heat of the patient.

In order to get a clear and concise view of the treatment I am about to suggest, it may be well to grasp two or three prominent points in

SYMPTOMATOLOGY.

As to the temperature: Liebermeister's scheme represents the temperature as gradually rising, until the exacerbation of the fifth day carries it to 104°. Then the temperature does not get below 103° for fourteen days or until the morning of the 20th day of the fever. The average temperature during that time is about 104°. During these two weeks there have been seen the usual normal diurnal variations which are identical with the variations which occur in the 24 hours in health, 1½°, but no remission until about the 20th day.

Wunderlich made his scheme from 700

cases, I think, and it differs slightly from the above in having a temperature $\frac{1}{2}$ to $\frac{3}{4}$ of a degree lower on the 7th, 8th and 9th days. During the 4th week, in the mornings, the patient will be quite free from fever, while the heat in the body will push the mercury to 104°, 103° in the evening. It is the high temperature from the 5th to the 20th day of the fever that plays havoc with the patient. The result is seen in the *heart's action*. The frequency of the pulse generally depends, in all febrile diseases, on the degree of temperature. The absolute height of the frequency is, however, less in this fever than in most others. In many cases it does not rise above 100, and if the heart's action is vigorous it does not usually rise to 110 at any time in this disease. If the pulse rise to 120 and remains so for some time without any special cause, the patient will soon die with paralysis of the heart. The weaker the heart becomes, the weaker the pulse and smaller and perhaps irregular. The strong heart gives a perceptible expansion of the artery wall by the pulse wave, dicrotism is appreciated by the finger. Diminution of circulation follows enfeebled heart action, as shown by congestion in lower part of lungs from gravity, œdema of the lungs, coolness of extremities while the inner temperature is still high, as well as by all those conditions known as *collapse*.

When the temperature has been up to 103° only a very short time we notice disturbances in the functions of the nervous system. The sensations are blunted, the memory is treacherous and there is temporary delirium. A few days more and there is muttering delirium, a stupid condition, the delirium increasing or the stupor more profound until the patient cannot be aroused, and as soon as the medulla oblongata is reached by this paralysis, death speedily follows. Before this latter stage is reached, however, the heart generally becomes implicated; without this disturbances of brain functions are not nearly so dangerous.

A temperature nearly continuous of 103° is more dangerous than a much higher one with good remissions. As evidence of the correctness of the views here presented as to the effect of increased temperature in the production of the alarming and dangerous symptoms just detailed, I will state as my own experience, unequivocally, as well as

that of every intelligent practitioner who has tried it, that by the early treatment of typhoid fever by directly abstracting the preternatural heat and keeping the body at or below 102° most of the time, these *serious disturbances of the functions of the heart and brain do not occur*.

TREATMENT.

The method in the treatment of typhoid fever here proposed is simply to withdraw the excessive heat in the body by the external application of cold water. The manner of applying the cold water will depend very much upon the condition of the patient. The ordinary full-length bath is always to be preferred. In ordinary civil practice this is often not convenient, frequently not possible. Then the effusion or aspersion of cold water on the patient will be the next best thing. The temperature of the water will depend somewhat on the degree of the fever. As a rule, water at 70° will answer the purpose; when the patient does not complain, however, or his temperature is 105° or above, it is better to use water at 60°. I have quite frequently used water fresh from the well and with the happiest results.

The average duration of a bath at 70° will be about ten minutes; if the water is warmer it should be used for a longer while. There is no need of dressing the patient at once; wrap him in a sheet and put him to bed. If the baths have to be given at long intervals, the personal linen may be arranged at the end of an hour if it does not fatigue the patient. The frequency of the baths will depend upon the emergency; every time the thermometer stands 102° in the mouth or axilla a bath should be given.

The first effect of the cold water is the sudden withdrawal of heat from the surface of the body, the change of temperature internally is much slower, depending on various well understood circumstances. So that at the end of a ten minutes bath the internal temperature may not have changed, and perhaps an hour or two hours may pass before the full effects of the bath are received. This effect may last several hours. On the other hand, in severe cases of fever, the effects of the bath on the surface of the body may have been equalized through the system, and the heat wave gradually flooded back to the point from which it was depressed, within the space of two hours. A few cases will

illustrate the practice; only the symptoms here discussed are mentioned:

M. T., aged 13, F., 8th day, temperature, morning (9 A.M.), 105°; noon, 104½°; evening, 104°. 9th day, temperature, morning (6 A.M.), 104°; noon, 103°; evening, 103°. Up to this time the patient had been under the usual treatment of veratrum, gelsemium, etc.

The high morning temperature was evidence of a very severe attack, and is always a bad symptom.

On the tenth day the patient was placed on a seat across a large wash-tub and water at 70° poured over her from a dipper until a large pailful was used. To keep the fever at and below 102° five baths were taken the first day. Three to five baths were taken for several days, and one or more baths were given for fourteen days; during the day the temperature was taken under the tongue every two hours, and registered three times a day; and only three times, and on different days, after the baths were begun did the register show more than 102°. The patient took only a few doses of medicine of any kind and had a rapid convalescence.

C. E. H., aged 27, M., 9th day, temperature, morning, 102°; noon, 103½°; evening, 106°. The patient's heart was so weak that we had to resort to cool sponge baths a good deal of the time. Whenever he was able to be lifted out of bed and laid in a full length bath tub by the bedside it was given at 80°; sometimes at 90°, then gradually cooled down. Only on four occasions did the evening exacerbation reach 103°; the sponge baths were frequently continued 30 to 40 minutes; the convalescence was not tedious.

H. D., aged 11, M., on fifth day slightly delirious, and on seventh considerable coma, temperature almost continuously over 104°, and in the evening, 106°. On 8th day began effusions of water on body and applied ice bag to head. Although the baths were given quite regularly there was such a degree of the sensation of chilliness, owing to derangement of nerve centers, that the water used was of higher temperature than was usually employed. We succeeded in keeping his temperature below 103°. On the 16th day he brightened up and called for what he wanted, the first time in 10 days. He recovered.

If properly given, the number of baths required to keep down the fever will be a good indication of the severity of the disease.

The more rapidly the fever returns the more certainly does the patient require just this treatment carried out with great thoroughness. In some very severe cases I have had baths given every two hours for 36 or 48 hours. This is unusual, however.

CONTRAINDICATIONS.

There are only a few conditions where the baths should be suspended or prohibited. As already indicated, in *extreme weakness of the heart's action*, where the surface is cool with great internal heat, and a pulse that points to paralysis of the heart, it is asking too much that still further external cooling will help things.

Under these circumstances recourse should be had to alcohol and quinine until the peripheral circulation and heat are restored, when the baths may be continued. No one whose opinion is worth anything believes that alcoholic drinks increase the fever; it does strengthen the heart's action, and wine, grog, or punch may be steadily used, in such a way that the quantity given may be increased if necessary; so will quinine in doses of six or eight grains repeated at intervals of several hours. When recourse is had to quinine, however, it is better to take advantage of its anti-pyretic quality and give 25 grains divided into three doses, one to be taken every 15 or 20 minutes until the whole is taken. This may be repeated if necessary, daily, for two or three days. When the peripheral circulation and heat is at least fair, much good may be accomplished from *cold packs* or sponge baths. A sheet doubled, wrung quite dry out of cold water, may be laid over the patient down to the knees, and closely tucked in and changed every ten minutes for half an hour or 40 minutes; the patient need not be moved at all, and dry clothes on each side of him will protect the bed. Of course a dry sheet should be laid over the wet one. A cold pack managed in this way produces no fatigue, and something like the effects of a full length bath.

P. F., a young married woman, on the evening of the sixteenth day of typhoid fever presented most alarming symptoms. Temperature 106½° with such weak heart action that the least exertion was impossible; the voice was hardly a whisper; countenance bleached; she could scarcely lift an arm from the bed; stomach so irritable that nothing could be retained; pulse 130, very

small and feeble and surface cool. I gave twenty-five drops of laudanum in a little thin starch by injection, to prepare the way, and in twenty minutes I injected thirty grains of quinine suspended in an ounce of thin starch. It was retained. The next day the patient was better. The cold spongings were continued occasionally and the quinine repeated thrice in nightly succession. She recovered. The occurrence of hemorrhage from the bowels would preclude the use of full length baths, for all movement of the body should be positively interdicted. When the hemorrhage is violent and the heart's action not too much weakened by the fever, I think I have saved life by the prompt administration of thirty grains of acetate of lead in one dose. An ice-bag should be kept over the bowels and opium administered. After the hemorrhage is allayed by any means, the cold pack or sponge bath may be freely used. Of course, in perforation of bowels, baths are not to be thought of. When the patient is at all in danger from the fever I do not abandon the baths on account of menstruation. When there is much meteorism, cold, thick compresses should be kept over the abdomen and changed every twenty to thirty minutes. When the brain symptoms are at all troublesome, ice-bags should be kept on the head, or cloths taken from a lump of ice should be kept on the head and changed every two or three minutes.

As the method of treatment here suggested is new to the practice of most of those who will favor this paper so much as to read it, a few general remarks may not be out of place. The physician who expects to derive any special benefit from giving his patient a cold bath once or twice, or every day or two, while his patient is on the old plan of treatment, thinking he will get the benefits of both plans of treatment, will be disappointed. If he thinks that a bath of 90° temperature and continued half an hour will do as much good as one at 70° for ten minutes, he is mistaken. In this method of treatment he will not receive results from half way treatment commensurate with that degree of treatment. He will be subjected to the mortification of seeing no beneficial results at all.

Timid and irresolute doctors, therefore, are not likely to employ it efficiently. This is a troublesome practice during the first half of

the disease, to the physician until he gets a little practical insight, and to the nurse, for there is frequent taking in and out of water, taking temperature every two hours and recording the hour and the temperature on a piece of paper, which is to be used for no other purpose, except marking the letter B. at the hour when a bath is given. But if in the first part of the attack there is more trouble to the well ones, in the after part there is much less trouble to all. No foul bedsores to dress, no wild delirium to watch, no deathlike coma, no involuntary evacuations. All of these old terrors of typhoid fever have literally been washed away.

It is absolutely essential that the thermometer be used regularly, by the physician when present, when he is absent by a careful nurse, who will also keep the record. The old notion that the physician can judge of the temperature of the patient by applying his hand to the body, or by the count of the pulse, is exploded long ago, and only those practice it who have failed to move onward with the practice of medicine.

Finally, to those who do not believe that the end of human wisdom has been reached in the administration of the mineral acids, gelsemium, veratrum and turpentine, let me commend the able article on typhoid fever in Ziemssen's first volume by Dr. Liebermeister, of Tübingen.

Insanity.

BY DR. J. H. EGAN, PULASKI, TENN.

THE classification adopted by Dr. W. A. Hammond is the simplest and most practical, viz.:

1, Perceptual insanity; 2, intellectual insanity; 3, emotional insanity; 4, volitional insanity; 5, mania; 6, general paralysis; 7, idiocy and dementia.

In the above forms of mental disease there is always present one or more of the following conditions, viz.: Illusion, hallucination, delusion, incoherence and delirium.

We do not desire at this time to say anything about the pathology, diagnosis and prognosis of the disease, but will confine ourselves to the best and most rational method of treatment.

It is a prevalent opinion among the people that the sooner a person who has been afflicted by Providence is hurried off to the lunatic asylum the better. It is supposed that phy-

sicians as a body do not comprehend diseases of the brain, and that all knowledge is confined to superintendents of asylums. How ludicrous it would be to say that a physician did not understand and could not treat consumption because he was not resident medical officer of some sanitarium.

Dr. Hammond says: "I feel, therefore, justified in making the assertion, and I do so with a full sense of its importance, that a general practitioner of good common sense, with such a knowledge of the human mind and of cerebral physiology and pathology as can be obtained by study, and familiar with all the factors in his patient's history, is more capable of treating successfully a case of insanity than the average asylum physician." Dr. Winslow says: "It is established by the evidence of experienced men that nine cases of insanity out of ten recover if placed under treatment within three months after the attack. Incipient insanity yields as readily to treatment as incipient inflammation or any other disease with which we have daily to combat."

Up to the present time in the United States, contributions to the science of mind from medical officers of asylums have been few and unimportant. The most valuable brochures and systematic treatises are from the pens of physicians who have not been attached to hospitals for the insane. Among those foremost in the science and art of psychiatry are Hammond, Clymer, Seguin, Spitzka and Beard in New York, Mitchell in Philadelphia, Miles in Baltimore, Jewell in Chicago, Baudery in St. Louis and many others, all unconnected with lunatic asylums.

Less than one hundred years ago insane persons were treated worse than the criminals. The method of cure was by means of chains, bars and punishments of various kinds. An iron collar was put around their necks, another broad and strong band of iron encircled their bodies, their arms were confined in like manner, and the bands around them were riveted to the one that was fastened about the chest; the ankles were fettered and the neck collar was connected by a chain six inches long with an iron ring, which slid up and down on a stout bar fixed to the wall at the head of their beds. It was impossible for the wretch to assume any other than a sitting position in his bed. They were whipped; they were kept alone in a

quiet and dark room; they were waked from sleep either suddenly or gradually by imitated thunder or soft music; they were fed on bread and water, or starved for several days in succession.

Dr. Pinel knocked off the chains and manacles from the lunatics of Paris; and this was the beginning of a more rational treatment of the insane. Even now, humanity is shocked at the horrible instances of cruelty in the treatment of lunatics, which in the last few months have been published in connection with asylums in New York, Ohio and Minnesota. In the New York city lunatic asylum four homicides have occurred during a year. In one of them a patient was beaten to death by an attendant; in another an attendant was killed by a patient; in a third, a patient was thrown off a wharf, and drowned; and in the fourth, one lunatic was ordered to give a hot bath to another lunatic, who was also paralysed. After getting him into the bath tub, he turned in the hot water and walked away leaving the poor wretch to be boiled to death. In the Minnesota asylum, a patient, who refused to eat, had his mouth filled with food, and the mass pushed down into the stomach with the handle of a knife. On another occasion he was laid on a bench, and held firmly down while his mouth was plugged, and soup from a pitcher poured down his throat. The soup entered his windpipe, and in five minutes he was dead. In another case a lady was forcibly fed, and had the roof of her mouth torn out. In some retreats the camisole and other mechanical means for confining the body are still in vogue. The most popular instrument of torture is the Utica crib. It consists of a bedstead similar in form to a child's crib, like it having slatted sides and ends; it is also furnished with a lid of slats. This lid is on hinges, and fastens with a spring or lock and key, but in neither case can it be opened by the unfortunate inmate. In this receptacle the maniac is stretched out at full length with less than a foot of space between him and the lid. It is not surprising that death has relieved many of them from their torment.

The colony of Gheel in Belgium was the first to make application of the principles of liberty, and has been the point of departure for a great reform in the treatment of mental alienation. The village has a population of 11,-

000. Of these 800 are lunatics living with heads of families, who are called nurses. A medical officer manages the whole. The lunatics work in the family and village, and take part in the amusements. An infirmary receives the worst cases.

The insane asylum at Clermont has a colony called Fitz James. It was founded in 1847. It is a beautiful rural estate. Nothing recalls the idea of confinement or seclusion. It is divided into four sections. 1, The administrative department. 2, The farm where the lunatics live. 3, The house in which the female paying patients reside. 4, Building occupied by the laundry and laundresses. There are 300 patients. It is wonderful to see with what eagerness they accept laborious occupations. There has never been a suicide, and escapes are rarer than at asylums where every obstacle to flight is interposed. There are no signs of mechanical restraint in the halls, sleeping apartments, or in the farm houses; not a gate or a door guarded; no locks, no bolts, no bars; everything was open; and every man and woman was free.

At Morningside, the asylum is conducted like a home. The inmates are made to feel that it is a home and not a prison. Balls are given weekly, and outsiders mingle with the lunatics. Concerts are also given; a newspaper is printed. The inmates work in the large garden. A room is lined with inflated rubber so that if one be very maniacal, and not easily controlled he is temporarily retired, and cannot hurt himself, should he butt himself against the wall.

What should an asylum be? It ought to be constructed like any other hospital, and we know by experience that the pavilion is the best, viz., a central administrative building round which the wards for the patients are to be grouped, surrounded by extensive grounds where the labor of the inmates may be utilized. There ought to be a staff of visiting and consulting medical officers the same as we find in any well appointed hospital.

There is one class of patients who under no circumstances should be sent to any asylum, viz., those who are perfectly harmless, but who labor under a delusion which is pertinent to themselves. For example, a person was recently judged insane, and committed to the asylum, whose delusion consisted in this that he believed his thoughts escaped

from his nose and ears, and were known to others. He plugged his nose and ears. In other respects he was perfectly sane. Such cases I say ought never to be confined in an asylum.

Drs. Storer of Boston, F. Barker and M. A. Pallen of New York, A. J. C. Skene of Brooklyn, Geo. J. Engleman of St. Louis, and J. G. Meachem of Racine, Wis., have for years past directed the attention of the profession to the influence of uterine disease upon insanity. Many women have been confined whose disease was produced by uterine trouble. Remove that, and the insanity vanishes. Dr. Skene now visits the asylum at Brooklyn for the purpose of treating those of the females affected with diseases peculiar to their sex. In every asylum this ought to be done, and I opine that female patients ought to have the attendance of female physicians or skilled gynecologists.

The insane are better treated at home than at the best retreat-home. Dr. Pinel says, "If the attention of the relatives are well received, taken at their just value, accepted with gratitude, eagerly desired; it would be inhuman, indiscreet, and not in accordance with sound medical science to deprive him of them. Nothing can replace, nothing equal the tender devotion, the affectionate solicitude of the family. Many times we have been the witness of the inestimable benefit of these moral and physical aids, and it is for us a sacred duty in the absence of the most imperious necessity not to separate the lunatic from them." Of the hundreds of cases who have been treated by Dr. W. A. Hammond, only one was sent by him to an insane retreat.

The great trouble with asylums is the fact that they contain none but the insane. The lunatic appreciates the insanity of another, but of course, cannot see his own delusion. For the same reason that it is unwise and injudicious to congregate consumptives together where they can see each other wasting away and dying, so also has the segregation of lunatics the same prejudicial influence upon one another.

I will conclude with the following propositions:

1. Lunatics are better treated at home by an intelligent physician than at an asylum.
2. No female ought to be received into an

asylum until after an examination by an expert gynecologist.

3. Persons who are afflicted with a delusion and harmless, and at the same time sane on every other subject, ought not to be confined in an asylum.

4. An asylum ought not to be a prison but a home.

5. The building ought to be on the plan of any other hospital, or better still a number of cottages to accommodate not more than six persons.

6. There ought to be a staff of visiting medical officers with resident physicians as in any other well appointed hospital.

7. The inmates ought to labor.

8. All mechanical restraints ought to be abolished.

9. For the violent, rooms should be constructed ceiled all around with inflated rubber so that patients cannot harm themselves in their maniacal excitement.

10. Where a patient cannot be treated at home, the best place to send him is to the family of a physician where there are not more than four or five afflicted.

Pulaski, Giles Co., Tennessee

Reports of Societies.

American Medical Association—Thirty-first Annual Meeting, held in New York City, June 1, 2, 3 and 4, 1880.*

THE Association was promptly called to order at 11 o'clock A. M., June 1st, by the president, Dr. L. A. Sayre. After the offering of prayer by the Rev. Dr. W. F. Morgan, Dr. T. Gaillard Thomas, in a characteristically eloquent speech, welcomed the members of the Association to the hospitalities of the profession and citizens of New York.

The names of the registered delegates were then read by the Secretary.

The president then delivered his address, of which the following is an abstract:

"*Gentlemen of the American Medical Association:* Before entering upon the duties of the high office to which you have elected me, I wish to return you my sincere thanks for the distinguished honor thus conferred, and to pledge you that I will endeavor to discharge its duties to the best of my ability.

*For the material from which this report is prepared we are indebted largely to the *Medical Record*.

"No one can feel more keenly than I do my own incapacity properly to fill the distinguished position to which you have elected me, or more sincerely regret that some other member, more competent and more worthy of the honor, had not been elected in my place. But as your too partial friendship has thus elevated me to this position, I must appeal to your generosity to overlook all shortcomings, and shall rely upon your mutual aid to assist me in the discharge of the important duties thus imposed. Who can properly appreciate the immense value which this Association has already been to the medical profession throughout our whole country? Contemplate for a moment the difference in the *morale*, the devotion to scientific investigation, the mutual respect and good feeling between its members at the present time, and its condition when the Association was organized. At that time there were often envyings, jealousies and heart-burnings, fault-finding, and traduction; those who had achieved distinction were frequently slandered and abused by those who had not been so fortunate; the slightest imperfection of a professional brother was magnified into such undue proportions as completely to obscure any really good qualities or attainments which he might possess, and thus the whole profession was injured in the estimation of the public by the rivalries, bickerings, and jealousies that existed among its members. Now, each one seems so engaged in endeavoring to improve himself and elevate his own position in the profession, that he has no time to devote to studying his neighbor's faults, much less to accurately scrutinize and publicly herald his seeming defects. The science of medicine has been so much enlarged in all its different departments by the minute research now demanded, and by the great and rapid progress of many of its specialties, as to require that every moment of a man's time be occupied in the closest study if he would keep himself abreast with the daily improvements in our profession, and he who is thus occupied has no time to study the defects of others. By this constant effort to improve ourselves and advance our science, the tone of the whole profession is elevated, and we already see that medical men are more and more respected by the community at large.

"Let us review, briefly, what has been done by the profession in America for the improvement of medical and surgical science and the relief of suffering humanity. Some years ago, Sidney Smith, one of England's most popular authors, said, in the *Edinburgh Review*: 'The Americans are a brave, industrious, and acute people, but they have hitherto made no approaches to the heroic, either in their morality or their character. During the thirty or forty years of their independence they have done absolutely nothing for the sciences, for the arts, for literature, or even for the statesmanlike studies of politics and political economy. In the four quarters of the globe, who reads an American book? or goes to an American play? or looks upon an American picture or statue? What does the world yet owe to American physicians or surgeons? What new substances have their chemists discovered, or what old ones have they analyzed? What new constellations have been discovered by the telescopes of Americans? What have they done in mathematics? Who drinks out of American glasses or eats from American plates, or wears American coats or gowns, or sleeps in American blankets?'

"It seems to me that the Declaration of Independence, and the willingness of Americans to sacrifice their lives to obtain it, were acts of heroism equal to any recorded in history.

"The organization of government under constitutional law, which has yielded such results as were never before obtained, is an evidence of statesmanship, and of knowledge in political economy which has been seldom equaled and never surpassed.

"As to the question of American manufactures and the nations that use them, we can safely refer to the reports of our Chamber of Commerce, for a satisfactory answer. American science has no need to be ashamed of its Henry and its Morse, its Bache, Peirce, Newcomb, Draper, Dana, Marsh, Gray, Hall, and its adopted Agassiz. Nor, has the *American Journal of Science* anything to fear by comparison with its European contemporaries.

"But to the question, 'What does the world yet owe to American physicians and surgeons?' we will venture a more extended reply, although time permits us to refer only to a few of our professional achievements.

"First among the greatest boons ever conferred upon suffering humanity stands 'anæsthesia,' an American suggestion, and one that immortalizes the name of Morton. Who can ever estimate the value of this discovery? When we consider the fact that at every moment of time in some part of the civilized world hundreds, if not thousands, are receiving the benefits of this great discovery, the mind becomes overawed at the magnitude of the blessing, and even imagination fails to comprehend fully its benefits.

"Ovariectomy, another American contribution by the medical profession, has done probably as much toward saving life as any other surgical discovery in the nineteenth century. It was first practised in 1809 on Mrs. Crawford, in Danville, Kentucky, by Dr. Ephraim McDowell. At the present time it is acknowledged as a proper operation, and Dr. Peaslee said that 'in the United States and Great Britain alone ovariectomy has within the last thirty years directly contributed more than thirty-thousand years of active life to woman, all of which would have been lost had ovariectomy never been performed.'

"In gynecology the whole professional world cheerfully and gratefully acknowledges the original and valuable contributions of Sims, Thomas, Emmet, Peaslee, Atlee, Kimball, Taylor, Pallen, Dunlap, Minor, and others in this department.

"The new operation of litholapaxy, as performed and described by Dr. Bigelow, of Boston, is one of the grandest triumphs of modern surgery, and of which any American surgeon may justly feel proud.

"In conservative surgery we certainly compare most favorably with any other nation. In the mechanical treatment of diseases of the joints alone we are able to exhibit triumphs in surgery of which the American profession may well be proud.

"In the *Lancet* of February 14, 1880, Mr. Roderick Maclaren, M. D., Surgeon to the Cumberland Infirmary, in his presidential address to one of the branches of the British Medical Association, on 'The Advances in Surgery during the past Twenty Years,' says, 'No account of the recent progress in surgery can justly omit the application of the principle of absolute rest to diseases of the vertebræ. It is done by enclosing the body in a plaster-of-Paris jacket. Though

only introduced into this country about two years ago, it has established itself as an *incontrovertible success*.' This is another triumph for American surgery, and is justly admitted, not only in England, but in all parts of the civilized world, and we feel that American surgery has a right to congratulate herself that she has contributed this great boon for the relief of human suffering.

"In laryngology we can certainly claim Green as a pioneer, and the facts he established are now acknowledged by the entire scientific world. The improvements made in this department of surgery by Cohn, Cutter, Bosworth, Elsburg, Lincoln, Lefferts, Robinson, and many others in this country, entitle us to favorable rank with other nations.

I believe I have enumerated enough to justify the statement that if the distinguished author before referred to were to write now, he would express sentiments very different from those contained in the above quotation. Not content, however, with what we have already achieved, let us still press onward, and, accepting the motto of this great State, constantly cry 'Excelsior.'

The President then referred to the claims which the metric system had upon the Association and the profession, and then passed to the question of the

PUBLICATION OF TRANSACTIONS,

and presented the merits of two plans, the volume and the journal form. As an example of the journal form, reference was made to the *British Medical Journal* and the British Medical Association.

"The similarity of the two associations, in many respects, both in their organization and in their objects, is so great, that we may possibly learn something to our advantage by carefully studying the history of the older association, and profit by her experience, and if necessary, by her example. The importance of the subject must be my excuse for bringing to your attention many details which otherwise might possibly be regarded as superfluous.

"These details are of importance to the American Medical Association, for they include the germs of an organization peculiarly adapted to American ideas. It is essentially democratic and entirely representative. It is dependent for its success on the intelligence, union, and good-will of the members.

It is decentralizing, inasmuch as it tends to the formation and the strengthening everywhere of the local societies, which have thus throughout the year the means of making themselves heard in metropolitan centers, and of communicating with each other. Above all, it is a most successful and influential means of increasing the membership, and enlarging the power and widening the basis of the Association, and of making it a living organization during the intervals between the annual meetings.

"Finally, it has the great advantage of securing the largest amount of value to each and all of the members, for the smallest possible subscription. The *Journal* becomes, in fact, a co-operative enterprise in which *the profits resulting from their subscriptions go into their own pockets*, instead of those of any individual proprietor. They *own their own paper*. They are able to get the advantage of a powerful organization and of a first class medical paper at the same annual subscription as that of a medical paper by itself, and with the surplus they find funds for the promotion of public and scientific objects, and the creation of a reserve fund for future public uses.

"There seems no reason why an experiment so essentially in accord with American instincts and traditions, and one which has succeeded so well in England, should not have at least as great, if not greater success in America.

"One point, however, that is specially worthy of note is, that the success of the *British Medical Journal* has been largely dependent upon the manner in which it has been conducted. The weekly *Journal* did little for the Association until it fell into the hands of an experienced editor, whose ability is so generally recognized that there is no need to dwell upon it, and to whom a large and unfettered responsibility is left, although he remains, of course, personally responsible to the executive body of the Association for the right use of the power entrusted to him, as every editor does to those who appoint him. It will be necessary to find for any organ which this Association may publish an editor of recognized position, whom the Association would accept as its worthy officer and representative in so responsible a post—a man of literary skill, scientific knowledge, and journalistic experience, or, at least, jour-

nalistic instincts and tact. He should be paid liberally; he should be treated with respect, and from him ought to be expected a serious determination to use the powers entrusted to him with courtesy and fairness, and with one sole object, the elevation of the standard of professional knowledge and interests, the maintenance of a high order of professional dignity and mutual courtesy.

"It is impossible to doubt that such a man can be found. Possibly, there may be many, and the question is one which appears to be well worthy of thorough examination by the council and members of this Association, because it seems tolerably certain that if, for the present bulky, tardy, little-read, and unproductive volume of transactions, there could be substituted an active, vigorous weekly journal, read everywhere, and with a large income such as would naturally come to it from its advertising sheet, there would be in such a change the earnest of a rapid and important growth in the numbers, influence, and usefulness of the American Medical Association."

On motion the thanks of the Association were tendered to the president for his address, a copy requested for publication, and the recommendations referred to a committee of five.

The Committee of Arrangements announced that provision had been made for a temporary section on diseases of children.

On motion of S. D. Gross, the Association tendered to the president its warmest sympathy in his sad bereavement by the death of his son.

The Committee on Prize Essays, through its chairman, Dr. Austin Flint, reported that they did not feel warranted in awarding a prize to the single essay presented. Accepted and adopted.

The reports of other committees were announced, and received the usual reference.

On motion, the chairman of the Committee of Arrangements was instructed to have announced in the sections that to-morrow morning, at 9.30, the several delegations will meet in the general hall for the purpose of selecting a representative to serve on the Committee on Nominations.

The Association then adjourned to meet on Wednesday morning, at 10 o'clock.

In the evening the elegant reception at the Academy of Music was largely attended.

The music and supper arrangements were all that could be desired.

REPRESENTATION FROM THE U. S. NAVY.

Dr. A. L. Gñon brought up the question of representation from the U. S. Navy, and spoke against the action of the Association at the last session, and a vigorous discussion ensued, which was dissipated by a motion made by Dr. S. D. Gross, that as the Judicial Council stated that no charges preferred against the U. S. Navy had been authenticated, the U. S. Navy be at once admitted to full recognition in the Association.

The motion was unanimously carried.

COMMITTEE ON NOMINATIONS.

W. O. Baldwin, Alabama; E. R. Du Val, Ark.; M. S. Storrs, Conn.; Judson Gilman, Md.; W. S. Tremaine, Kansas; Marshal Sexton, Indiana; J. B. Book, Michigan; Jos. H. Warren, Massachusetts; E. M. Moore, New York; Duncan Eve, Tennessee; S. D. Gross, Pennsylvania; J. H. Pope, Texas; J. S. Billings, U. S. A.; J. Rufus Tryon, U. S. N.; J. Eliot, D. C.; T. G. Richardson, Louisiana; Dr. Wakefield, Florida; A. T. Woodward, Vermont; H. B. Ransom, Iowa; G. A. Shurtleff, California; F. D. Cunningham, Virginia; S. Baruch, South Carolina; C. P. Adams, Minnesota; M. Campbell, W. Virginia; J. G. Thomas, Georgia; William Marshall, Delaware; G. W. Nesbitt, Illinois; A. E. Heighway, Ohio; T. G. Robinson, Missouri; R. E. Howard, Mississippi; H. A. Hopper, New Jersey; G. P. Conn, N. Hampshire; A. Ballou, Rhode Island; Walter Kempster, Wisconsin; W. K. Oaks, Maine; J. A. Octorlony, Kentucky.

Dr. Brodie, Secretary, presented his report from the

DELEGATION TO THE CANADA MEDICAL ASSOCIATION,

which was accepted, and ordered to be entered upon the minutes.

Dr. Pratt, of Michigan, reported from the committee appointed last year to take into consideration the *nine* propositions submitted to the Association by Dr. Chaillé, of New Orleans.

The report was unfavorable to all the propositions except the fourth, which contemplated substituting a periodical medical journal for the present volume of transactions. On that proposition, however, the committee were of the opinion that it was the safer way

to wait upon the law of growth rather than to adopt any radical change at present.

The report was accepted and entered upon the minutes.

Dr. Walker, President of the Society of Asylum Superintendents, was invited to a seat on the platform.

REPORT OF COMMITTEE ON OZONE.

A letter from Dr. N. S. Davis, of Chicago, was read, which, although not a report, contained the essence of what a formal report would have communicated, and it was to the effect that insurmountable obstacles had been encountered in efforts to obtain records of the condition of the atmosphere, such as men of true science would regard as reliable.

He asked for \$200 to be expended for instruments, if found advisable.

Dr. Jas. T. White, of Buffalo, who two years ago introduced the resolution that gave origin to the Committee on Ozone, moved that the amount suggested be appropriated, and that the committee be continued. Carried.

Dr. J. S. Lynch, of Baltimore, Chairman

SECTION ON THE PRACTICE OF MEDICINE,

then delivered his address, in which he congratulated the profession upon the fact that the general health of the country during the last year has been so exceptionally good, and then turned his attention to the subject of yellow fever. He regarded it as settled that the germs of that disease cannot be destroyed by cold, and reviewed the history of the ship Plymouth as bearing upon that question.

Another peculiarity of the poison was that when first emitted from the subject, it was not in an active or potential condition, but subsequently developed so as to render it capable of imparting the disease; therefore a miasmatic-contagious affection.

A review of several observations was given in substantiation of that doctrine. The doctrine being true, there was an abundance of time to destroy the germs before they could communicate the disease; hence all danger could be absolutely prevented.

Dr. Lynch then passed to the consideration of the great mortality from consumption, scarlet fever, and diphtheria, and the means to be adopted to reduce such rate. Scarlet fever and diphtheria were preventible diseases, and consumption could be

markedly checked in its ravages by means of proper sanitary and hygienic measures.

The next topic was antipyretic treatment, as applied by means of the cinchona alkaloids, salicylic acid, carbolic acid and aconite.

The chairman then made a brief allusion to what had been accomplished by the aid of the thermometer, the ophthalmoscope, the microscope, and the hypodermic syringe, and closed with an eloquent reference to the present position occupied by the science and art of medicine.

The address was accepted and referred to the Committee on Publication.

Dr. W. T. Briggs, of Nashville, Tenn., then delivered his address as chairman of the

SECTION OF SURGERY AND ANATOMY.

He directed attention to a surgical procedure, than which none other was older in the history of the science or the art of medicine—*preventive trephining*. The word trephining Dr. Briggs used in a comprehensive sense, and the operation, by whatever instrument effected, was a means to an end, and that end was the removal of fragments of the skull. He then directed attention to the importance of treating injuries of the head properly, especially such as involved fractures of the skull. After making slight reference to the history of the operation, he spoke of the mutability of opinion concerning many important subjects pertaining to medical science, such as blood-letting and lithotomy, and the same could be said concerning trephining; but at the present time there was a revolution in progress in favor of the procedure. The earliest authentic information concerning the instrument was found in the writings of Hippocrates, although it was known to have been performed as a religious rite in prehistoric times.

There were, according to European authorities, three classes of surgeons holding distinct views with reference to the procedure under consideration: First, those who absolutely rejected the trephine; second, those who, while recognizing its great value, regarded it solely as a curative agent; and third, and by far the smallest class, those who accepted the instrument as a valuable prophylactic agent, and urged early resort to it in such cases as, from the nature of the in-

jury, seemed to demand it in order to avert threatening danger.

The position taken by Dr. Briggs was, that trephining was not a dangerous procedure if resorted to before the secondary effects of traumatism were developed, and he then considered the objects to be attained by its performance. In the opinion of most authors it should be restricted to cases in which there is immediate danger from compression caused by pus, extravasated blood, or fragment of bone, and each of these conditions was then discussed somewhat in detail, and the conclusion reached that the surgeon should not wait until the characteristic symptoms of such lesions were well marked before operating, but that the operation should be performed for the purpose of preventing the occurrence of inflammation, and the serious consequences by which it might be followed. Statistics showed that of 106 cases, two-thirds were saved by *preventive* trephining. Of the 42 cases whom he had trephined, 38 recovered. The deductions from such facts were: 1, Extensive comminuted depressed fractures of the skull were almost invariably fatal without operative measures. 2, Curative operations were but little better than the expectant plan of treatment. And 3, Preventive trephining offered the best chances for a successful operation. Dr. Briggs then discussed the question of the treatment of punctured and simple fractures of the skull, fractures of the external and of the internal table, and stated as the essentials to success: 1, Full antiseptic precautions; 2, the use of the conical trephine; 3, entire *removal* of all loose fragments of bone; 4, special attention for the purpose of securing perfect drainage, the open-wound treatment being his favorite method.

The address was listened to attentively, and, on motion, was referred to the Committee on Publication.

Communications were then read and received their proper reference, after which the Association adopted the following amendment relating to

PRIZE ESSAYS AND THE COMMITTEE ON PRIZE ESSAYS.

a. There shall be four annual prizes of two hundred and fifty dollars each, which shall be awarded at the close of the second year after announcement, as hereinafter ex-

plained, for strictly original contributions to medical and surgical progress.

b. It shall be the duty of the chairman of each of the following four sections: 1, Practical Medicine, Materia Medica, and Physiology; 2, Obstetrics and Diseases of Women and Children; 3, Surgery and Anatomy; 4, State Medicine and Public Hygiene, to appoint annually, before the adjournment of the meeting of the Association, three members of ability and good judgment, who shall constitute a Committee of Selection, and who shall, within thirty days thereafter, select and publicly announce for competitive investigation and report, a subject belonging to one or other of the branches of medicine included in the title of the section.

c. It shall also be the duty of the chairman of each of the sections mentioned to appoint annually a committee of award, consisting of three experts, who shall carefully examine the essays offered for competition, and if any one shall be found worthy of the prize as a substantial contribution to medical knowledge, to recommend the same to the Association.

d. All essays placed by their authors for competition shall be in the hands of the chairman of the respective committees of award on or before the first day of January preceding the meeting of the Association at which the reports of the committee are required to be made.

e. All Prize Essays are considered as the property of the Association.

f. The names of the authors of the competing essays shall be kept secret from the committees by such means as the latter may provide.

g. Membership in either of the two committees shall not debar from membership in the other; nor shall membership in the Committee of Selection exclude a member from the privilege of offering a competitive essay.

The Association then adjourned to meet at 10 A. M., Thursday, June 3d, and the metric system was made one of the orders for the morning session.

During the evening a complimentary entertainment was given at Booth's Theatre by Messrs. Reed & Carnrick, Scott & Bowne and the New York Pharmaceutical Association. Mr. Edwin Booth took the part of Iago, and other characters aided in the presentation of Shakespeare's tragedy of Othello. The only

exception that could possibly be taken to this superb entertainment was the issuing of far more tickets than could possibly be seated in the house. Hence the immense jam and the large number who could not find even standing room in the building.

THURSDAY, JUNE 3—THIRD DAY.

The Association was called to order at 10 A. M. by the President.

The first business in order was

THE REPORT OF THE COMMITTEE ON NOMINATIONS.

Dr. W. O. Baldwin, of Alabama, Chairman, read the following report: .

For President—John T. Hodgen, M. D., of St. Louis, Mo.

For Vice-Presidents—1st, W. H. Anderson, M. D., of Mobile, Ala.; 2d, Levi G. Hill, of New Hampshire; 3d, Henry T. Holton, of Vermont; 4th, H. Carpenter, of Oregon.

For Permanent Secretary—W. B. Atkinson, M. D., of Philadelphia, Pa.

For Treasurer—R. Dunglison, M. D., of Philadelphia, Pa.

For Librarian—William Lee, M. D., Washington, D. C.

For Chairman of the Section on Practice of Medicine, Materia Medica and Physiology—Dr. Charles Denison, of Colorado.

For Secretary—Dr. T. A. Ashby, of Maryland.

For Chairman of the Section on Surgery and Anatomy—Dr. H. McGuire, of Richmond, Va.

For Secretary—Dr. D. A. Eve, of Tennessee.

For Chairman of the Section on Obstetrics and Diseases of Women—Dr. James R. Chadwick, of Boston, Mass.

For Secretary—Dr. J. Taber Johnson, of Washington, D. C.

For Chairman of the Section on Medical Jurisprudence and State Medicine—Dr. J. T. Reeve, of Wisconsin.

For Secretary—Dr. R. G. Young, of Arkansas.

For Chairman of the Section on Ophthalmology, Otology and Laryngology—Dr. D. S. Reynolds, of Kentucky.

For Secretary—Dr. S. M. Burnett, of Washington, D. C.

For Members of the Judicial Council, to fill vacancies—Drs. J. K. Bartlett, of Wisconsin; F. Staples, of Minnesota; D. R.

Wallace, of Texas; J. S. Billings, of U. S. Army; J. H. Warren, of Massachusetts; and A. T. Woodward, of Vermont.

The Committee recommended that the next meeting of the Association be held in the City of Richmond, Va., on the first Tuesday in May, 1881.

As Chairman of Committee of Arrangements—Dr. F. D. Cunningham, of Richmond, Va.

The Committee further recommended that the Committee on Necrology and the membership of the Section on Medical Jurisprudence, State Medicine and Public Hygiene remain as now constituted.

The report was adopted unanimously.

Dr. Denison offered his resignation, which was accepted and referred to the Committee on Nominations.

Dr. Bronson, of Massachusetts, offered the following preamble and resolution, which was adopted:

WHEREAS, The published proceedings of various sections of the Association does not receive the practical expression desired, and does not represent the labors of its members; and *whereas*, the members of the Association have long felt that the present mode of introducing the Transactions to the profession has been unsatisfactory to all concerned in the advancement of medical science; therefore,

Be it Resolved, That a committee of five be appointed by the Chair to report at the next session regarding the practicability of formulating all the proceedings in journalistic form, as recommended by the President in his annual address. Carried.

The report on Sanitaria, presented by Dr. H. I. Bowditch, of Massachusetts, was read by title and referred to the Section of Public Hygiene.

The members of the Association were invited by Dr. J. Jeffries, of Boston, to test their eyes for color blindness.

Dr. J. S. Billings, of Washington, D. C., reported on

THE CATALOGUE OF THE NATIONAL LIBRARY, That Congress had made provisions for the publication of the volumes, of which the first would probably be published in July, 1880, and the second in July, 1881.

The following amendments to the Constitution, proposed by Dr. John H. Rauch, were adopted:

Article II, second paragraph, after "Army and Navy," insert "and the Marine Hospital Service of the United States."

Article II, fourth paragraph, at the end insert "the Marine Hospital Service of the United States shall be entitled to one delegate."

SECTION ON DISEASES OF CHILDREN.

Dr. S. C. Busey, of Washington, offered an amendment to the By-Laws, making provision for a new section, to be designated as Section VI, Diseases of Children. Adopted and referred to the Committee on Nominations.

The consideration of the report of the

METRIC EXECUTIVE COMMITTEE

being next in order, it was read by Dr. Atkinson, who moved its adoption. Discussion followed, which was participated in by Drs. Brodie and Fairbanks, of Michigan, and Bronson, of Massachusetts, who opposed it, and Cole, of California, Hunt, of New Jersey, Antisdel, of D. C., and Lyons, of Connecticut, in favor of the report, which was adopted by the Association.

The following were the propositions recommended by the committee, and adopted by the Association:

First. That it recommends the teaching and practice of the metric system in medical colleges, clinics, dispensaries, etc.

Second. That it charges its Executive Metric Committee with the duty to report annually on the above institutions which teach, and those which do not teach the metric system.

Third. That it authorizes said committee to enter into communication with the Metric Committee of the British Medical Association, in order to concert such plans as may render the use of the metric system simultaneous and uniform in both countries.

Dr. Theophilus Parvin, chairman; Dr. E. Seguin, secretary; Drs. Edward Wigglesworth, and F. R. Weist, Executive Metric Committee.

RESOLUTIONS.

Dr. Reynolds, of Louisville, offered a resolution requesting Congress to remove every obstacle to the full execution of the plans of John Gamgee, for the building of a refrigerating ship, etc., which on motion by Dr. Hunt, of New Jersey, was laid upon the table.

Dr. W. M. Beach, of Ohio, offered a resolution making provisions for the appointment, by the president, of a committee of five, whose duty it should be to endeavor to

secure for the medical staff of the army and navy a social position co-equal with that for like grades in any department of the service. Adopted.

REPORT FROM THE JUDICIAL COUNCIL

Whereas, A protest without signature, against the registration of the delegates from the Medical Department of the U. S. Navy, and unaccompanied by charges, had been placed in the hands of the Judicial Council; therefore, be it

Resolved, That the protest against the registration of delegates from the Medical Department of the U. S. Navy is not sustained, and therefore there was no cause for action thereon. Adopted.

Resolved, That the Hannibal Medical Society of Missouri is not entitled to representation in the American Medical Association, because it is not in affiliation with its own State Medical Society. The protest therefore was sustained.

Dr. James F. Hibbard, of Richmond, Ind., chairman of the

SECTION ON MEDICAL JURISPRUDENCE, STATE MEDICINE, AND PUBLIC HYGIENE,

then delivered an address, of which the following is an abstract: After some general remarks, in the course of which the interesting fact was brought forward that *in all previous time*, with reference to public hygiene, there had been published 459 documents of all kinds as against 1,525 published during the last year, Dr. Hibbard passed to the consideration of certain questions under the head of *medical jurisprudence*. Passing the literature of the subject, which was meagre, the chairman spoke of the request made by Congress of the Academy of Sciences to report upon some better way of legally taking human life than by hanging. It seemed unaccountable, while life was destroyed so easily, so surely, and so promptly by the taking of prussic acid or by the aid of a powerful current of electricity, that the process of hanging should have continued so long without effective remonstrance. In connection with this topic, allusion was made to the step of progress made recently by Judge Heller, of Indianapolis, in fixing *Wednesday* instead of Friday as the day upon which the law should be executed by hanging, and thereby breaking into the almost universal custom that had sustained and nourished prejudice and superstition which had been specially unhealthy in its influence upon all classes of people.

The second part of the address was devoted to certain questions connected with *psychology*, which in its general sense had had a very active state imposed upon it by recent investigations concerning the functions of the brain. Of psychologists there were two classes: first, theological, and second, scientific. The former were earnest, active, positive, and the latter, to which physicians mostly belonged, had become thoroughly aroused to the necessity of investigations to determine whether certain parts of the brain give rise to certain attributes of mind, or whether the brain as a whole is the organ of the mind as a whole.

There was no broad dividing line between the theological and scientific investigator, yet their courses were entirely distinct from each other. There was not necessarily, however, any conflict between them. For a long time the brain had been recognized as the organ of the mind; but to the investigations of Hitzig and Fritsch was the new impulse due which had led many observers subsequently to pursue study in the same direction.

In connection with this topic, reference was made to the increase in the number of the insane, and that led to the consideration of the questions, How far should the State assume the guardianship and maintenance of the insane? and what was the best method of proceeding?

These questions were fully discussed, with an expression of opinion that special training was not necessary to the proper treatment of the insane, any more than for the application of therapeutics in the treatment of any other brain disease or morbid condition of the system generally.

The speaker then directed attention to a social aspect of psychology, and spoke of it from the point of view of hereditary transmission of disease, and, as belonging thereto, the transmission of the tendency to intemperance and the commission of certain crimes. Would it not be discovered presently that all such irregularities—crimes if you choose—are due to imperfect nervous systems, and may not the tendency to such be transmitted? If due to a disordered brain, may not that re-act and lead to degeneration and disease of other organs? Under the head of *State Medicine*, Dr. Hibbard referred to the lack of uniform and well-considered

plans with municipal and local boards of health for operation, and then entered somewhat into detail with reference to the working of the National Board of Health and its ability to meet the demands of the hour without in any way interfering with local or State organizations. Some of the criticisms upon the work performed by the National Board were then considered, and special reference made to the fact that sanitary science was yet in its infancy; that it was only a few decades since offerings had been made to Hygeia. Its influence was felt not only in this country, but had already become international.

To carry out Dr. Bronson's resolution, offered early in the session, the President appointed Drs. W. W. Dawson, Ohio; J. R. Bronson, Massachusetts; W. H. Pancost, Pennsylvania; N. C. Husted, New York; J. S. Green, New Jersey.

On the President's address, Drs. S. D. Gross, Pennsylvania; J. S. Weatherby, Alabama; J. R. Bronson, Massachusetts; and W. R. Gillette, New York; to report in 1881.

Dr. J. M. Toner's report on Necrology was referred to the Committee on Publication.

The Librarian's report was now read. It stated that the library contained 1,302 distinct titles constituting 3,258 volumes. The Librarian asked for \$200, with which to carry on the work of the library. The report was accepted, adopted, and the asked-for appropriation granted.

The Association then adjourned to meet at 10 A. M., June 4.

The elegant receptions at Mayor Cooper's, August Belmont's and the Academy of Medicine were generally attended and appreciated by the delegates.

FRIDAY, JUNE 4, 10 A. M.

The Association was called to order by the President.

The following were appointed a committee on Dr. Beach's resolution concerning the social position of the members of the medical staff of the United States Navy: Drs. Wm. M. Beach, London, O.; C. Goodbioke, Clinton, Ill.; H. McGuire, Richmond, Va.; W. T. Briggs, Nashville, Tenn.; D. W. Yandell, Louisville, Ky.

A communication from Dr. T. Homer, Jr., U. S. Navy, containing a resolution adopted by the Virginia State Medical Society, in-

structing its delegates to the American Medical Association to ask that body to take the steps necessary for establishing a Mutual Medical Aid Association, was favorably received and referred.

A communication from the Philadelphia County Medical Society, concerning the abuse of medical charities, was received and referred to a special committee appointed by the chair, consisting of Drs. B. Lee, H. G. Piffard, S. W. Gross and J. W. Green.

Dr. A. L. Carroll offered the following:

WHEREAS, The County Medical Society of New York has admitted to membership graduates of schools not recognized by this Association; therefore,

Be it Resolved, That societies which admit irregular practitioners to membership be debarred from representation in the American Medical Association.

Referred to the Judicial Council.

The Treasurer's report was read and showed a balance in the treasury of \$579.59. The report was received and referred to the proper committee.

The report of the Committee on Publication was likewise received and referred.

Dr. Foster Pratt, of Michigan, offered a resolution instructing the Committee of Arrangements for the meeting of the Association in 1881, to publish before the meeting one programme of the work to be done in general session during the entire four days, instead of a daily programme. Adopted.

Dr. Pratt also offered the following resolution, which was adopted:

That the Committee of Arrangements be instructed to so place the proposed amendment to the Code of Medical Ethics upon the programme that it shall be made the special order at 10.30 A. M. of the second day's general session, and that it shall remain as a special order until disposed of.

The Committee on Nominations completed its report by offering the following:

For Assistant Secretary—Dr. J. G. Cabell, of Virginia.

For Committee of Arrangements—Drs. Cunningham, McGuire and Cullen, of Richmond, Va., with power to select others to make it a committee of seven.

The Committee on Publication is the same as last year.

For Chairman of the Section on Obstetrics—Dr. William Pepper, of Pennsylvania.

For Chairman of the Section on Diseases of Children—Dr. A. Jacobi, of New York.

For Secretary—Dr. W. H. Bradford, of Massachusetts.

The committee also recommended that the Treasurer deposit monthly the funds of the Association, in the name of the Association, in the Farmers' and Mechanics' Bank of Philadelphia.

The report was adopted.

Dr. H. G. Piffard, of New York, offered the following:

Resolved, That the Richmond County Medical Society, N. Y., which has members who have been irregular practitioners of medicine, be debarred from representation in the American Medical Association.

Dr. Keller renewed his amendment, that in the election of officers and in the appointment of committees the Association and its officers shall confine themselves to members and delegates who are present at the annual meeting.

Laid over under the rule.

On motion of Dr. Pallen, the printing of the transactions for this year was assigned to the Collins Printing House as last year, without advertising.

Resolutions of thanks were unanimously given to every one who had contributed to the success of the meetings.

To the Secretary was given an honorarium of \$1,000.

Dr. Hibbard offered, in behalf of the section on medical jurisprudence and State medicine, the following resolutions, which were adopted:

(1) Endorsing the National Board of Health.

(2) That the Association recommend medical schools to establish a chair of State medicine as a part of the regular curriculum.

(3) That the name of the section hereafter shall be "section on State medicine."

(4) That the committee on prize essays shall be Drs. S. E. Chaillé, of Louisiana; J. L. Cabell, of Virginia, and A. N. Bell, of New York.

The Canadian delegation were invited to seats on the platform. Dr. Howard responded, acknowledging the special compliments which the delegation had received from the Association.

Dr. J. T. Hodgen, the President elect, was now introduced, and appropriately responded.

After some further votes of thanks the Association adjourned to meet in Richmond, Va., on the first Tuesday in May, 1881.

The afternoon and evening was occupied by an excursion on the steamer *Grand Republic*, given by Wm. Wood & Co. The boat passed up North River to Yonkers, down around the battery, up East River to Blackwell's Island, through the bay and narrows to the iron pier at Coney Island. Here lunch was served and at 8 p. m. the boat started for New York. Altogether, it was a very enjoyable entertainment.

Altogether there were in attendance between eleven and twelve hundred delegates—the largest representation ever seen at any meeting of the Association.

Of the section work we have not space to speak except in very general terms. When it is stated that nearly two hundred papers were presented to be read before the various sections, it will be understood at once that the supply of material was superabundant. We shall take pleasure at another time and place in presenting a condensation of all that was of any practical value to the practical physician or surgeon.

Fourth Annual Meeting of the American Medical College Association.

PURSUANT to adjournment, the American Medical College Association convened in the Lecture Room of the College of Physicians and Surgeons of New York City, at 10 A. M., May 31st, 1880.

The meeting was called to order by the President, Prof. S. D. Gross.

The credentials of delegates from twenty-five colleges were received.

The report of the committee on a plan for the registration of the Medical Colleges of the United States, consisting of Profs. N. S. Davis and S. D. Gross, was, in the absence of the chairman of the committee, read by the Secretary of the Association.

It argued that no plan which fell short of including a three years' course, preceded by a preliminary examination, would command general respect as a proper preparation for the practice of medicine. It strongly recommended the adoption of these two changes in our articles of confederation at the present meeting. If, however, this failed, then the standard must be that of the Association. It criticised the great show of medical instruction exhibited by the several catalogues, as compared to the relatively small amount actually required.

The report was accepted and adopted.*

The standing committee on Medical Colleges, consisting of Profs. Murphy, Dunster and Connor, made a report as to the provisions of the Association not conformed to by the Colleges of the United States, giving in detail full specifications as to names and violated provisions. The same was accompanied by the circulars and letters furnishing evidence of the points made in the report.

After some discussion this report was accepted and adopted.

Action on amendments being in order, that offered by Prof. Menees last year was now taken up. It alters the articles of confederation as follows:

Art. II., Sec. 3: For "*two* courses" read "*three* courses."

Art. III., Sec. 3, third line, for "*two* regular sessions" read "*three* regular sessions;" fourth line, for "*two* full courses" read "*three* full courses;" sixth line, for "*two* full courses" read "*three* full courses."

Sec. 4, for "*two* yearly regular collegiate sessions" read "*three* yearly collegiate sessions."

Said amendments to take place at and after the sessions of 1882-83.

Pro and con., these amendments were very earnestly discussed by a large number of delegates present.

Finally, on motion of Prof. Peck, they were laid upon the table until the afternoon session.

On motion, the Association now adjourned till 3 P.M.

AFTERNOON SESSION.

Pursuant to adjournment, the American Medical College Association was called to order by President S. D. Gross at 3 P. M.

On motion, the reading of the minutes of the previous meeting was omitted.

On motion of Prof. D. S. Reynolds it was

Resolved, That the Secretary be instructed to notify the Colleges whose announcements are defective in any respect whatever, of the particular defects noticed in the report of the Committee on Colleges.

As evidently most of the violations of the requirements of the Articles of Confederation of the Association were due to thoughtlessness on the part of those preparing the several catalogues, it was decided to withhold for the present the publication of the names of the Colleges, and endeavor by private noti-

*The full text of this report can be obtained from the Secretary of the Association. Digitized by Google

fication to induce all to adopt a standard at least as far advanced as that required by the American Medical College Association.

For these reasons all names of specific Colleges are omitted in the abstract of the report of the Committee on Medical Colleges.*

A consideration of the amendments to the Articles of Confederation, offered by Prof. Menees, being in order, several motions and speeches were made with the intent of deferring present action, but the amendments requiring three full courses of lectures as a preliminary requisite for conferring the degree of Doctor of Medicine were finally adopted—twenty Colleges voting in the affirmative; the delegate of one College did not vote, and the delegates of four Medical Colleges were absent from the meeting. Thus, out of the twenty-five Colleges represented at the meeting, twenty voted for this amendment. The list of these Colleges is as follows:

College declining to vote on the requiring of three courses of lectures preparatory to the conferring the degree of Doctor of Medicine:

Jefferson Medical College.

Colleges voting for the amendments:

Medical Department of University of Louisville; Hospital College of Medicine; Medical Department Iowa State University; Detroit Medical College; Medical Department University Nashville and Vanderbilt; Missouri Medical College; Kansas City College Physicians and Surgeons; Louisville Medical College; Medical Department Michigan University; Medical Department University Louisiana; Alabama Medical College; Medical College State of South Carolina; Medical College of Indiana; Cincinnati College of Medicine and Surgery; Cleveland Medical College; Nashville Medical College; St. Joseph Hospital Medical College; Chicago Medical College; Medical Department University Wooster; Kentucky School of Medicine—20.

Colleges whose delegates were absent from the meeting at the time the vote was taken:

Texas Medical College and Hospital; Ohio Medical College; Medical College of Evansville; Atlanta Medical College—4.

Without discussion the following amendments were adopted:

Amendments to the Articles of Confederation:

For Art. VII, as it now stands, read Art. VIII.

Art. VII—Advertisements: "No College shall advertise in any other than a strictly

medical publication the names of its Professors, with their respective chairs."

The following amendment to the By-Laws:

For Section 1, Article V, of the By-laws, substitute the following:

"Delegates to the meetings of the Association may be chosen from among the members of the governing boards of a College, or from members of the faculty having a vote upon the graduation of students, or from both; but in no case shall such double representation entitle a College to more than one vote in the Association."

The following amendment to Art. I of the Articles of Confederation:

"The majority of the members of one faculty shall not constitute the majority of the members of another faculty, unless the sessions of the two schools are held simultaneously."

The Secretary read letters from the "College of Physicians and Surgeons of New York," "The Bellevue Hospital Medical College" and the "Medical Department of the University of Vermont," signifying their withdrawal from the Association.

To consider the objection to the admission of Fort Wayne College of Medicine, a committee was appointed consisting of Prof. D. S. Reynolds, Prof. E. S. Dunster, Prof. J. M. Bodine, Prof. P. G. Robinson, and Prof. W. H. Anderson.

The report of the Secretary was now read and adopted.

SECRETARY'S REPORT.

The total membership of the American Medical College Association now includes thirty-one active members. Since our last meeting the following five colleges have been admitted to active membership, viz.: "Cincinnati College of Medicine and Surgery," "Medical College of Indiana," "Nashville Medical College," "Savannah Medical College," and "St. Joseph Hospital Medical College," "Kentucky School of Medicine."

Three colleges have resigned their membership in the Association, viz.: "Medical Department of the University of Vermont," "The College of Physicians and Surgeons of New York," and "Bellevue Hospital Medical College."

Thus it will appear that our active membership is three greater than at our last meeting.

Two applications for active membership are now pending, and from present outlook one of these will be granted.

*The full text of this abstract will be found at the end of these minutes.

The colleges that have conferred the honorary M. D. are:

Nashville Medical College; Cincinnati College of Medicine and Surgery; Medical Department of Nashville and Vanderbilt Universities; Texas Medical College and Hospital; Medical Department of the University of Wooster; Hospital College of Medicine; Cleveland Medical College; Medical College of Indiana; Columbus Medical College—Total, 9.

Thus, out of the thirty-one colleges reporting, only nine honorary degrees were conferred.

Of the thirty-one colleges reporting, the following twenty were granted reduction or remission of fees:

Kentucky School of Medicine; Rush Medical College; Medical College of the State of South Carolina; Nashville Medical College; Savannah Medical College; Cincinnati College of Medicine and Surgery; Evansville Medical College; Medical Department of Universities of Nashville and Vanderbilt; Louisville Medical College; Hospital College of Medicine; Woman's Medical College of Chicago; Detroit Medical College; Cleveland Medical College; Medical College of Indiana; Columbus Medical College; Chicago Medical College; Medical Department of the University of Louisville; Jefferson Medical College; Starling Medical College; Atlanta Medical College—Total, 20.

Several of the Colleges have issued no catalogues since our last meeting. Those that have been forwarded to the Secretary are bound and presented to the Association with this report. It is gratifying to note the greater promptness of the Colleges in sending in their annual reports, also to note the diminution of the number of honorary degrees of Doctor of Medicine granted and the large increase in the number of Colleges which have granted no remission or reduction of fees, and the diminishing number of remissions or reductions of fees by such Colleges as availed themselves of the liberties granted by the Articles of Confederation.

Several things are very apparent from a review of the workings of the Association:

(1) The Association has greatly diminished the number of diplomas that are bestowed without thorough study and examination.

(2) It has diminished the number of "dead heads" in the several medical classes.

(3) It has diminished an undignified bidding for students, and so increased the respect entertained for medical colleges.

(4) It has undoubtedly increased the revenues of the Colleges as a whole.

(5) It has greatly promoted uniformity in medical teaching and in requirements for graduation.

(6) Its standard has been formally adopted by nearly all the Colleges started during the period of its existence.

(7) All the two-term (in one year) schools have disappeared, and with but two exceptions (and these among the oldest medical colleges in the United States,) "University Virginia and Harvard," it is impossible for a medical student to complete his college work within one year, at any regular College or Colleges in the United States.

All this has been accomplished by so little display and so little force that few have realized its full significance. If we firmly hold on our way, it is in our power to direct and shape the medical education of this continent. Thirty-two medical colleges united to promote each other's welfare and that of the profession can, directly and indirectly, do far more than thirty isolated colleges working alone and more or less antagonizing each other's efforts.

Thus far we have been largely engaged in organizing, so that we might move on together. Henceforth we should move onward. It seems to us that the time is ripe for adding to our requirements a matriculation examination. Having adopted this and a three years' course of lectures, we shall be able gradually to establish a more scientific and satisfactory method of instruction, and so fulfill the grand object in the establishment of this Association, viz: "The advancement of medical education in the United States."

On motion of Prof. D. S. Reynolds, it was

Resolved, That the Association of American Medical Editors be requested to give the full weight of its influence to the support of the Association of American Medical Colleges, in the execution of all its efforts to secure reforms in medical education, and that the public press everywhere be requested to publish the amendment to the Articles of Confederation of this Association, requiring attendance upon three full courses of lectures in three separate years before admitting candidates to apply for final examination for the degree of Doctor of Medicine.

Prof. W. W. Dawson offered the following amendment to Article III, Section 4, of the Articles of Confederation:

"Two sessions of nine months shall be regarded as equivalent to three courses, and Colleges adopting this curriculum shall be admissible to membership in this Association."

Prof. Dunster offered the following as an additional Section to Article III, of the Articles of Confederation:

"In lieu of the first of the three courses of lectures, or the first year of a three years' graded course, members of this Association may lawfully accept a certificate from the proper officer of Cornell University, countersigned by a regular physician who is also a professor in said University, that a student has successfully pursued at said University a course of study of not less than two years, covering the following branches:

1. Latin, French or German, 1 year, 5 recitations per week.
2. Chemistry, organic and inorganic, including laboratory work, equivalent to at least 1 year, 5 lectures or recitations per week.
3. Botany, including laboratory work, equivalent to 1 year, 3 lectures or recitations per week.
4. Anatomy, physiology and histology of man and other vertebrates, including laboratory work, equivalent to 1 year, 10 lectures or recitations per week.*

Provided, That during or at the end of the second year or course, the pupil submits to an examination in such studies as may be required in the first year or course, and are not covered by said certificate.

Resolved, That our institutions of learning are advised to establish courses of study, including laboratory work, similar to the preliminary medical course at Cornell University, with a view to securing the concession here made to that institution.

A communication from the Commissioner of Education of the United States, relative to bogus diplomas, was read by the Secretary. The same was received and placed on file, the Secretary being directed to represent to the Commissioner the impossibility of the Association acting officially in the matter.

Election of officers being in order, ballots were taken with the following result:

For President—Prof. S. D. Gross.

For Vice-President—Prof. N. S. Davis.

For Secretary and Treasurer—Prof. Leartus Connor.

On motion, the Association adjourned to 9 A. M., June 1.

June 1st, 9 A. M.

Pursuant to adjournment, the American Medical College Association was called to order by President Gross.

The minutes of previous meeting were read and approved.

The report of the treasurer, showing a balance in the treasury of \$22.10, was read, accepted and adopted.

*In reckoning the laboratory work, not less than $2\frac{1}{2}$ hours of actual time is equivalent to a lecture or recitation.

The committee to whom had been referred the matter of the admission into the Association of Fort Wayne College of Medicine, reported that in view of the evidence presented, it was neither expedient or desirable to admit said College into the Association.

The report was accepted and adopted.

The following amendment to by-laws was offered by Prof. Connor:

Art. III, sec. 2. Middle of third line after College charter, add: "And send to each College of the Association their last annual announcements, with any other information which they may desire the colleges to consider in acting upon the application."

On motion of Prof. Bodine, the annual assessment for the year was fixed at \$5.

The President appointed as a Committee on Medical Colleges, Profs. Leartus Connor, J. M. Bodine, E. S. Dunster.

On motion, it was resolved that, in the judgment of this Association, the minimum lecture fees should be seventy-five dollars.

The following communication was read by the Secretary, accepted and placed on file:

AUSTIN, Texas, May 20th, 1880.

Secretary of the Association of American Medical Colleges,
New York:

SIR—At the 12th annual meeting of the Texas State Medical Association, April, 1880, the following resolution was adopted, and the Secretary of said body instructed to transmit a copy of same to yourself:

Resolved, That the Texas State Medical Association regards with approval the effort now being made to elevate the standard of medical education, and especially does it endorse the action of the Association of American Medical Colleges, requiring attendance upon three (3) regular winter courses of lectures as a prerequisite for the degree of Doctor in Medicine.

Very respectfully,

R. H. L. BILEH, M. D.,

Secretary T. S. M. A.

Accepted.

On motion of the Secretary, the thanks of the Association were tendered to the College of Physicians and Surgeons for its courtesy in furnishing convenient rooms for the meeting of the Association.

On motion, the Association adjourned to meet next year at the same place as the American Medical Association, at a time to be fixed upon by its officers.

Adjourned.

S. D. GROSS, M.D., LL.D., D.C.L., Oxon,

President.

LEARTUS CONNOR, A. M., M. D.,

Secretary,

92 Cass Street, Detroit, Mich.

ABSTRACT OF THE REPORT OF COMMITTEE ON MEDICAL COLLEGES.*

Your committee was instructed to procure, in so far as possible, the circulars and announcements of all the Medical Colleges of the United States, to examine the same and note any provisions therein that appear to violate the requirements of the Association, and to report a list of all colleges that violate its requirements, with a full statement of the provisions violated. To obtain as exact a report as possible, the committee mailed to all colleges not belonging to the American Medical College Association a circular letter of inquiry in regard to specific points.

Of the thirty-four circulars thus sent out, twenty-two were returned with the inquiries more or less fully answered. It is fair to suppose that the remaining twelve colleges regarded their announcements as sufficiently well exhibiting their present status.

We were also able to collect sixty-three announcements. The answers to our circular letter and the announcements are presented with this report, in order that any question respecting the accuracy of the details of the report may be readily answered.

Six colleges do not require of all candidates for graduation evidence that they have studied medicine three years.

Three colleges do not require a preceptor's certificate.

One college does not require any positive evidence of good moral character.

Three colleges do not require attendance upon two courses of lectures.

Five colleges give the degree of M. D. to students who have attended their last course elsewhere.

The regular term of five colleges is less than twenty weeks.

Four colleges give beneficiary tickets irrespective of the limitations prescribed by the American Medical College Association.

Four colleges grant *ad eundem* degrees on terms other than those required by the Association, viz., on simple examination on the practical branches.

No Colleges avowedly graduate students whose two regular courses of lectures have been attended, so that the time between the beginning of the first course and the end of the second is less than fifteen months.

In Colleges not belonging to the Association there does not seem to be any definite policy on this point. But the Dean of Long Island Hospital Medical College writes that "December 6th, 1879, the Faculty passed a resolution requiring the close of the last course of lectures to be twelve months subsequent to the close of the first course of lectures."

Three Colleges hold lectures during the evening. These Colleges do not strictly violate any specific requirement of the Association. Still, it is understood that, as a rule, the Colleges shall require their students to spend the entire working time of each term in actual medical college work. It is clear that the

*As mentioned elsewhere, the names of those colleges whose requirements for graduation are less than those of the American Medical College Association are hereby omitted, in the hope that they may, during the coming year, at least come up to the Association's standard.

above arrangement only demands a small part of such time, and that the least valuable, to be so spent. Hence, other things being equal, a term passed in such a manner, must be far less advantageous to the student.

Twenty-two Colleges do not designate in their announcements the subjects covered by their final examinations.

It is believed that all of these Colleges do actually require candidates for the degree of M. D. to pass a satisfactory examination upon the seven principal subjects designated by our articles of confederation, but we think it would be better if all would so state it in the list of their requirements for graduation, leaving nothing to be implied.

RESUMÉ.

(a) Twenty-eight Colleges publicly conform to all the requirements for active membership in the American Medical College Association.

(b) Thirty-five Colleges, by their public announcements, do not show that they conform to all the requirements for active membership in the American Medical College Association.

(c) The last named list of thirty-five Colleges may be divided into two classes: (1) Those failing to conform to the provisions of the Association through oversight; (2) those so failing from deliberate choice.

Sixteen Colleges do not conform to the requirements of the Association, apparently from oversight.

Seventeen Colleges do not conform to the requirements of the Association, apparently from choice.

In making this last classification of medical colleges, your reporters have no other guide than the impressions received from a study of the documents presented with this report.

Incidentally we remark that nearly all the new Colleges started during the past year have adopted a standard equal to that required by this Association.

It may be solely a matter of taste, but at least the appearance of many announcements would be enhanced by the omission of all outside advertising matter. Such extraneous material we find in sixteen of the sixty-three announcements examined.

(Signed,) LEARTUS CONNOR, M. D.,
JOHN A. MURPHY, M. D.,
E. S. DUNSTER, M. D.

AN IMPROVED NITRATE OF SILVER CAUSTIC.—Dr. Sawostizki (St. Petersburg *Med. Week.*, March 25, 1880,) called the attention of the Moscow Surgical Society to an improvement in the preparation of sticks of nitrate of silver. It consists in melting together five parts of nitrate of silver with one part of nitrate of lead. Sticks formed of this compound are preferable to those of the ordinary caustic, as they are not so easily broken, and can be pointed just like a lead pencil.

The Detroit Lancet.

LEARTUS CONNOR, A. M., M. D., EDITOR.

The Thirty-first Annual Meeting of the American Medical Association—Some General Remarks Concerning it.

THE first and perhaps most notable feature of this meeting was its vast proportions. In the numbers of actual delegates it surpassed by nearly one-half the record of any previous meeting. Besides this, large numbers of the profession, not delegates or members, in and about New York were present more or less to see and to hear and to enjoy. The entertainments were immense, one night filling the academy of music; another, Booth's theatre; another, the spacious mansions of Mayor Cooper, and August Belmont, and the academy of medicine building, and finally, crowding even the vast decks of the steamer *Grand Republic*. The number of papers offered to the various sections was also unprecedentedly great, numbering nearly two hundred. All this and more was fitting to a meeting gathered in the metropolis of the western continent. Another pleasant feature of the meeting was its great harmony of thought and feeling. Scarcely anything occurred to mar the even flow of the various activities in play. Few personal or sectional or clique interests were permitted to wash one another's soiled clothes in private or public. More than ever the profession seemed to prize the meeting for its invaluable service in bringing its members into close personal contact with each other. None who mingled with the hundreds of brother doctors, can return home without being conscious that he knows the medical profession as he never knew it before.

Another new section, that on diseases of children, was formed this year. So the process of segmentation goes on until in a few years all special fields of professional work will be represented by these sections.

More strenuous efforts than ever were made to secure the establishment of a medical journal after the pattern of the *British Medical Journal*. The difficulties in the way of such an enterprise are such that their solution was not reached.

We think, however, that it will only be a question of time. Were the right man to be obtained all obstacles would vanish and

the association journal become an established fact.

A disinterested observer would, we are sure, have been struck with the disorder prevailing in the general meetings and in the sections. Constant movement of the members in the back portions of the rooms, and as constant talking between those in motion, and crowds of others rendered it impossible to read or speak with any degree of satisfaction. With our own view of the best work of the association, we are not disposed to criticise this disorder. On the other hand we think that through it and by it the individual numbers are brought into such mutual personal contact as to most effectually do the best work of the association. The speeches and papers permit some to talk and some to listen. This is well, but even better they furnish a pretext for the commingling of others who care nothing for either the speaker or his thoughts, but who do care to meet and chat with established or rising celebrities or with each other.

Of the quality of the papers presented, it was on the whole far below that presented at the average medical society. Of the addresses of the chairmen of sections the best thing that could be said of them, as a whole, is that they were short. The best part of the section work consisted in the discussions that were elicited by the several papers. In general, we may say that the meeting was a success.

The Three Term Movement.

The world moves onward be it never so slow. In our last issue we chronicled the decision of the Michigan State Society respecting the compulsory attendance upon three regular terms of college instruction—in effect saying that its members would support only those colleges which adopted this requirement and a preliminary examination. Since then, as will be seen elsewhere, the Texas State Medical Association has given its adherence to the same doctrine.

From the *St. Louis Courier of Medicine* we learn that the State Society of Missouri publicly throws its influence into the same movement. Lastly, the American Medical College Association passed unanimously an amendment to its Articles of Confederation binding all its members to exact of their candidates for the degree of Doctor of Medicine

attendance upon three regular college terms during three separate years. The list of advocates of three terms is thus seen to be increasing. It would be well not only for State societies to be heard in this matter, but also county and local societies. Each man in the profession who believes that this change should become universal ought to make his belief publicly felt. So only will it be possible to bring about the desired changes in certain old colleges.

Which are the colleges that absolutely require three terms now? University of Pennsylvania, Medical Department Syracuse University, Bellevue Hospital Medical College, St. Louis Medical College, Michigan College of Medicine, Detroit Medical College, etc. Several other colleges have three-year courses, but permit students to graduate in one or two years if only they pass the examination. In this class we find Harvard Medical School, Medical Department Yale College, Medical Department Michigan University, etc.

It will be admitted that the three-term movement has made respectable progress, when its recent origin is considered. That twenty colleges should at once bind themselves to adopt it indicates that they felt the pressure of public opinion to be irresistible. True another year must elapse ere the amendment goes into operation. This time was needful in order to so re-arrange the college work as to make the best use of the third term.

American Medical College Association—A Misunderstanding of its Late Action.

A statement is passing around the journals, in effect saying that the "late meeting of the American Medical College Association recommended the adoption of three full courses, in separate years, as essential to obtaining a degree." The truth is, the above Association passed unanimously an amendment to its articles of confederation, requiring its members to exact of all candidates for the degree of M. D. attendance upon three courses of at least twenty weeks each, during three distinct years, as one condition for conferring the degree of "Doctor of Medicine."

The point we make is that the Association does not recommend, it *requires*. The requirement goes into operation in 1882-83,

giving all colleges an opportunity to re-arrange their methods of teaching so as to meet the demands of the times. We are well aware that the adoption of three distinct courses as an absolute requirement for conferring the degree of M. D. means a total revolution in medical education. It means more teachers, more work, more laboratories, real clinical teaching, less pay to a few teachers, but more to others, the ultimate systematizing and grading of studies, the introduction of a preliminary examination—in a word, it means that the colleges must show that they take as students only those who have a fair chance of succeeding as medical students; that they *require* these students to work in the dissecting-room, in the chemical laboratory and in the physiological laboratory, until they have mastered by actual manipulations the fundamental elements of anatomy, chemistry and physiology. Further, the colleges must show that they *require* all students to do actual clinical work for at least a year—this work to cover all the ordinary diseases and surgical operations. Mingled with this work of the hand, of the ear, of the touch and of the sense of smell, must be blended suitable lectures and recitations.

It will be well for all colleges to heed the signs of the times and wheel into the line along which the American Medical College Association is moving. Its last meeting, as will be seen by the report published elsewhere, demonstrated that it had the courage, the vitality to move onwards and demand of its members three courses instead of two. Now, let those colleges who believe in advanced medical education step into the ranks of the Association, and soon all respectable institutions will follow. Here is a chance for societies, and for medical journals, and for individuals to aid a substantial progress by using all their influence in favor of this action of this Association. Let them know it is a real bona fide move, and not a card stuck out to pretend advancement while it stands absolutely still—that it is an absolute requirement to be met by every member of the Association, and not a mere sentiment, a recommendation. Colleges that do not care to be bound by its requirements will resign. Such, ere long, will be looked upon with distrust by the thinking men in and out of the profession.

Memoranda.

Dr. J. H. Pooley has resigned the chair of surgery at Starling Medical College.

The editor of the *British Medical Journal* is said to receive a yearly salary of twenty-five hundred dollars; the sub-editor, eight hundred dollars.

The number of students that matriculated in Spain during 1878-'79 was over seven thousand. The number graduated was over eleven hundred.

Dr. Alfred Swaine Taylor is dead. He was best known as a toxicologist and a writer on medical jurisprudence.

Two hundred thousand kilogrammes of iodine were produced during 1879, in the Province of Tarapaca, in Peru.

"St. Paul Medical College" is the name of a new institution just started at St. Paul, Minn. It provides a series of studies covering four years, but will give a diploma to those who can pass the examination after they have attended *two courses* of lectures. It advises four courses, but requires only two. In this it surpasses "Harvard," which provides four courses, but requires attendance upon only one. The length of the course is to be eight months.

The *Phil. Med. Times* records a death from the administration of bromide of ethyl, at Jefferson Medical College Hospital. The patient died before the operation was begun. Dr. Levis supervised the production of anæsthesia, so that it must have been correctly done.

The second annual meeting of the American Laryngological Association was held in New York city, May 31, June 1 and 2. A large number of valuable papers were read and discussed. A full report of the proceedings will be found in the *Laryngological Journal*.

Dr. L. C. Lane, professor of surgery in the Medical College of the Pacific, advises the ligation of the common carotid artery for the relief of glaucoma.

E. B. Treat, publisher of Fox's "Photographic Illustrations of Skin Diseases," announces a companion work, entitled, "Photographic Illustrations of Cutaneous Syphilis," to be issued soon.

Wm. Wood & Co. announces that the next volume of their "Library of Standard Authors" will be a reproduction of the magnified series of plates of Savage's Female

Pelvic Organs. Of course the plates will not be colored.

It is stated that an attempt is being made to produce a corner on opium, by a syndicate of New York and London men. Already the price has nearly doubled.

Iowa has established, this last spring, a State Board of Health and Vital Statistics.

Dr. Farrar, in the Dental Laboratory, says that half a ton of pure gold, worth half a million of dollars, is annually packed into human teeth.

The *Medical Press and Circular* states that there are thirteen hundred magnetic healers in the State of Pennsylvania. Only ninety-six of these have any sort of medical diplomas.

When rubber instruments or apparatus become dry or lose their elasticity, Dr. Pol, of St. Petersburg, recommends that they be immersed in a mixture of one part of ammonia and two parts of water, until the elasticity be restored. The time of immersion varies from a few moments to half an hour.

The general method of treating stammering is essentially the same. The patient is told to take a deep inspiration at the beginning of each sentence. He is taught to speak very slowly and distinctly, and must daily go through a regular series of exercises.

In a recent number of the *Medical Record*, Dr. Stephen Smith tells us *how* the bill relating to the New York State Board of Health was so readily passed. Briefly the story runs thus: Immediately after election, the name and residence of every member of the Legislature was obtained. Then the list of doctors in the State was examined, and a doctor living near each legislator was selected to confer with him about the bill it was desired to pass. A competent lawyer was obtained to put the bill into proper shape, and finally the men were selected who introduced it into both branches of the Legislature. The whole matter was planned apparently by one head and executed through available agents—the members of the medical profession. These educated the members of the Legislature, so that the passage of the bill was a foregone conclusion even before they assembled. The moral from this is, that similar medical legislation could be reached in a similar manner.

The Wickersheimer secret remedy was given by Dr. Greening at the late meeting of American Medical Association, as follows: To 3,000 parts of boiling water add 100 parts of alum, 25 parts of chloride of sodium, 12 parts of saltpetre, 60 parts of carbonate of potash, 10 parts of arsenious acid. Cool the mixture and filter. Then add to 10 parts of the solution 4 parts of glycerine and 1 part of methylalcohol. One remarkable property of this fluid lies in its power to preserve eyes without interfering with the transparency of their refractive media. Several eyes were exhibited that had been in the solution for months, and yet the fundus oculi could be readily seen.

On May 18th, 1880, the New York legislature passed the act establishing a State Board of Health. The members of this Board are to consist of two medical men, one who may or may not be a doctor, the attorney general, the superintendent of the State survey and the health officer of the port of New York, and three others to be appointed by the Governor, who shall be members of boards of health in the State. Thus the board is comprised of nine. The duties of the board are much the same as in other States. Fifteen thousand dollars were appropriated for the use of the Board. The following are the names of seven of the board, viz: Elisha Harris, M. D., and Hon. Erastus Brooks, of New York City, and John S. Delavan, M. D., of Albany, a homœopathic physician; Dr. E. M. Moore, of Rochester, N. Y.; Prof. Charles E. Chandler, President New York City Board of Health; Dr. W. M. Smith, Health Officer of the port of New York; Dr. James D. Hemd, of the Utica Board of Health. Dr. Moore was made President of the board, and Dr. Elisha Harris, Secretary. The central office of the board is to be at Albany.

A bill regulating the practice of medicine and surgery has become a law in New York State. It requires every person practising in the State to register his diploma or license with a county clerk. If the diploma has been obtained from some college outside of New York, its holder must pay some faculty of some incorporated school within the State \$20, and obtain its endorsement, which endorsement shall be equivalent to a diploma granted within the State. This is doubtless a good bill for the bank accounts of the sev-

eral medical colleges in New York, but it is to be feared that it may render the endorsement and granting diplomas so profitable a business as to lead to the formation of new bogus colleges. We can see a gain in the registration of all practitioners, but we are unable to understand how any good can come from the other provisions. One small State examining board with adequate powers could have clarified the profession of that State. Not so the several incorporated colleges.

The Association of American Medical Editors held its annual meeting at the Fifth Avenue Hotel, Monday evening, May 31st. By dint of much drumming a few members were induced to assemble and hear Dr. A. N. Bell read an address prepared by the President, Dr. Powell, that gentleman being unavoidably detained at home by sickness in his family. Thanks were tendered to the author of the address. Dr. Geo. F. Shradley was elected President for the ensuing year, Dr. S. Nelson, Vice-President, and Dr. D. S. Reynolds, Secretary. The question of adopting the metric system after some debate was laid upon the table. Adjourned to Monday evening preceding the next meeting of the American Medical Association. The only present or prospective value of this organization lies in the promotion of a mutual acquaintance among the few editors that attend the National Association.

The "Medical Annals" is unwilling to adopt the so-called metric system. The basis of this system is the measurement of a quadrant of the earth's meridian. This quadrant varies in different parts of the earth—the variation being due to the fact that the earth as a whole is elliptical, so that it has many different lengths of equatorial diameters, and hence different lengths of quadrants of the meridians of different longitudes. The French savants themselves acknowledge an error of several seconds in the production of their famous metre. John Herschel says the "production of the metre was not a blunder only, it was a sin against geometrical simplicity. It was a sin, because in the earth's axis they had a straight and unvarying line."

Rest, position and pressure are the trinity of the healing surgical graces, but the greatest of all is pressure.—GAMGEE.

Editor's Book Table.

The Books Noticed in these Pages are for Sale by E. B. SMITH & CO., Detroit, Mich.

Kingsley on Oral Deformities.*

On its face this volume bears the evidence of skillful, honest, patient labor. The more it is studied the more evident does such labor appear. With a large and a long experience the author has given us so much of it as can be written in one small volume. The surgery of the mouth is most interesting, though intricate. The reader is especially impressed with the writer's methods and his success in making artificial substitutes for destroyed noses, jaws, hard and soft palates, etc. Certainly he makes out a good case for the use of mechanical appliances in correcting palatine defects. Especially full and complete are the chapters upon the treatment of maxillary fractures. Every surgeon will be interested in the discussion of this hitherto somewhat neglected subject. In these and other allied subjects the general surgeon, medical practitioner and dentist are all interested. Every intelligent person will read with consideration the chapters on the origin of irregularity in the teeth and jaws in its relation to civilization and idiocy. From these we make a few citations to illustrate the scope of the author's thought. "Laying aside all cases that may be due to an inherited tendency to follow or exaggerate some given type, together with those which are manifestly due to forces operating only after eruption, the primary cause, so far as the individual is concerned, of any general disturbance in the development of the permanent teeth, showing itself particularly in their malposition, is directly traceable to a lesion of innervation of the trigeminal nerve; it is an interference more or less prolonged, with one of the prominent functions of that nerve and operating at its origin. * * * The function of the trigeminus thus stimulated or interrupted is that which supports, regulates and governs the nutrition of the tissues to which its terminal branches are distributed." Again, "I do not hesitate to place it upon record that the next generation will see more of abnorm-

ality in dental development, and an increase of nervous and cerebral diseases, and that the two are co-related and spring from the same cause. * * * To fathers and mothers surrounded by luxury and flattered with the precocity of their infants, which they are stimulating to the last degree, we say, "Do not under peril encourage this brilliancy which is now so charming. Let the mind stagnate rather. For the first seven years of life give concern only to his morals and to his physique; nourish him as you would an animal from which you desired the finest development, stimulating only his moral nature and his intellect will take care of itself. Thus if he have no hereditary taint, will be laid the foundation of a splendid specimen of his race."

The volume is issued in the accustomed massively elegant style of its publishers.

Fox's Photographic Illustrations of Skin Diseases.*

With the numbers before us this series of illustrations of skin diseases closes. The publisher announces a companion volume to cover the subject of cutaneous syphilis. The parts before us illustrate the following subjects, viz.: "Herpes facialis," "Hydroa bulbosum," "Erythema circinatum," "Erythema exfoliatum," "Purpura simplex," "Cornua cutanea," "Alopecia areata," "Morphæa," "Scleroderma," "Sarcoma pigmentosum." The excellence of these illustrations is unquestioned. To those having limited clinical experience in this class of diseases they will prove of great service. We doubt not that their merits will place them in the library of most general practitioners outside of the larger cities.

The Practitioner's Reference Book.†

The short period that elapsed between the issue of the two editions of this work demonstrated that it met a want of the profession. Briefly described, it gathers the odds and ends of many details of medical practice and places them in a shape convenient for easy reference. The present volume is increased

*A TREATISE ON ORAL DEFORMITIES as a branch of Mechanical Surgery by Norman W. Kingsley, M. D. S., D. D. S., with over three hundred and fifty illustrations. Cloth; pages 541. 1880. New York: D. Appleton & Co. Cloth; price \$5.00. Sheep; \$6.00.

*PHOTOGRAPHIC ILLUSTRATIONS OF SKIN DISEASES. By George Henry Fox, A. M., M. D. Parts 11 and 12. 1880. New York: E. B. Treat & Co., publishers. Complete in 12 parts. Price, \$2 each part.

†THE PRACTITIONER'S REFERENCE BOOK. By Richard J. Dunglison, A. M., M. D. Second edition. Revised and enlarged. Cloth; pages, 476. 1880. Philadelphia: Lindsay & Blakiston.

in size by about one-half by the new additions. Thus we find chapters on "How to Write Metric Prescriptions," "Directions as to the Use of the Hypodermic Syringe in Diseases to which it is Applicable," "How to Use the Galvanic Battery in Medicine and Surgery," "How to Apply Trusses to Herniæ," "How to Use the Clinical Thermometer," "How to Prepare Stained Sections of Animal Tissues," "Reference Tables of Size, Weight and Specific Gravity of all the Organs, etc., in the Body," "Celebrated Prescriptions or Remedies," "Therapeutics of Bowel Affections of Children," "Diagnostic Tables of the Principal Fevers, of Acute Pulmonary Diseases, and of Diseases of the Larynx and Naso-pharynx, etc., etc. Altogether it is a very useful book, and worthy of a place in every practitioner's library.

Trousseau's Therapeutics, Vol. 1.*

This volume constitutes the fifth issue of Wood's library of standard authors for eighteen hundred and eighty. It treats of re-constituents, astringents, alteratives and irritants. Though an old book, it is the most fascinating of its kind that we have ever met. It has nothing to do with *materia medica*, and its discussion of therapeutics is very like that of Fothergill in his *Handbook of Treatment*.

In discussing the action of different tonic remedies, he groups them under three heads:

(a) Astringent tonics, which give to the solids directly the tone, orgasm, vital density needful for the performance of their insensible actions.

(b) Analeptic tonics, which restore immediately to the blood the organizable and reparative principles which are lacking.

(c) Neurasthenic tonics, characterized by conferring vital resistance immediately upon the living forces of the animal system and by re-establishing its synergies.

He presents the study of remedies under two parts: (1) That of their physiological or immediate action. (2) That of the indications or contra-indications for producing this action in given diseases.

The mechanical execution of the volume corresponds in its substantial elegance to that of its predecessors.

*TREATISE ON THERAPEUTICS. Translated by D. F. Lincoln from French of A. Trousseau and H. Pidoux. Ninth enlarged edition. Cloth; pages 302. 1880. New York: Wm. Wood & Co.

Third Volume of American Reprint of Reynolds's System of Medicine.*

In our notice of the first two volumes of this edition we took occasion to direct attention to the peculiar features of the entire work. These features are as equally well defined in the volume before us. If possible, the additions made by the editor are more important. The consideration of ulceration of the bowels is illustrated by plates taken from the medical and surgical history of the war of the Rebellion. The authors of the separate articles are the most celebrated in connection with the subjects which they discuss. These subjects cover the diseases of the mouth, fauces, pharynx, œsophagus, stomach, large and small intestines (including the rectum and anus), peritoneum, abdominal lymphatic glands, liver, pancreas, spleen, kidneys, bladder, ureters, uterus, pelvic cellular tissue, ovaries and skin. Besides, we have fully considered the following: Cholera infantum, intestinal worms, trichina spiralis, ascites, Hodgkin's disease, Addison's disease, exophthalmic goitre, diabetes melitus, diabetes insipidus, hydronephrosis, pelvic hæmatocele and spermatorrhœa. The volume is well indexed, and following it is an index of the entire three volumes, so that reference to any topic may be readily accomplished.

Altogether it is not too much to say that this edition of original monographs on all the subjects pertaining to the practice is unsurpassed by any other in the English language. This fact added to the marvelously low rate at which it is offered to the profession will enable it to reach a large number of medical libraries.

Second Edition of Goodell's Lessons in Gynecology.†

The publication of two editions of this book within six months constitutes a rare event in the history of standard medical literature. The brief period between the

*A SYSTEM OF MEDICINE. Edited by J. Russell Reynolds, M. D., F. R. S. With numerous additions and Illustrations by Henry Hartshorne, M. D. In three volumes; Vol. 3 Diseases of the Digestive, Blood-glandular, Urinary, Reproductive and Cutaneous Systems. Cloth; pages 990. 1880. Philadelphia: H. C. Lea's Son & Co. Sold by Macauley Bros., 183 Woodward avenue, Detroit, Mich. Price of entire three volumes, cloth, \$15.

†LESSONS IN GYNÆCOLOGY. By Wm. Goodell, A. M., M. D. With ninety-two illustrations. Cloth; pages 450. 1880. Philadelphia: D. G. Brinton & Co.

two issues did not permit the author to make great changes in the text. Four new lessons, however, have been added and a few illustrations. The same frank, free mode of expression pervades these as was so charming in the first lectures.

Tyson's Guide to the Examination of Urine.*

With the exception of the correction of a few errors this edition is practically the same as the last. It is undoubtedly one of the best guides for the use of students. Its popularity is evinced sufficiently by the rapid sale of its several editions.

Hale on the Management of Children.†

No physician has long followed his calling without often meeting cases in which children have been killed or seriously harmed by the mismanagement of children by their mothers. To care for her children in any real physiological sense is at this day largely a lost art. Mothers have so many duties to society, to church, and so many pleasures or follies, that little time, or strength, or real affection remains for the baby. Hence the baby must pass its time with and be trained almost solely by an oftentimes ignorant, careless, vicious nurse-girl. Mothers who thus commit their children to nurse-girls in infancy, and to school teachers and chance companions when larger, will find no good in this book. But such as love with a mother's love their children, and show this love by seeking to mould their lives according to healthy standards, will prize it greatly. Very well has the author stated the essentials that should guide the care of the young. We could hope that her words might be read and heeded by tens of thousands of mothers.

*A GUIDE to the Practical Examination of Urine. By James Tyson, M. D. Third Edition. Revised and corrected with illustrations. Cloth; pages 104. 1880. Philadelphia: Lindsay & Blakiston. Price, \$1.50.

†The Management of Children in Sickness and in Health. A Book for Mothers. By Amie M. Hale, M. D. Cloth; pages, 110. 1880. Philadelphia: Presley Blakiston. Price, 50c.

Concerning baldness, Prof. Fournier says there is nothing ridiculous or malformed about it. It confers upon the physiognomy an expression of wisdom, experience and venerability. It adapts itself marvelously to certain heads which would be deformed by a wig, and is the severe beauty represented in sculpture by the classic head of *Æschylus*.

Abstracts from Exchanges.

Prepared by Judson Bradley, M. D., Albert B. Lyons, M. D. and E. A. Chapoton, M. D.

Practical Medicine.

YELLOW FEVER—TEACHINGS OF CLINICAL FACTS.—Dr. S. M. Bemis (*Amer. Jour. Med. Science*, April, 1880) concludes an able paper upon the literature of yellow fever with the following propositions: (1) Yellow fever is the sum of changes and effects produced in the human economy from the presence of a specific poison. (2) The specific nature of the poison is shown (a) by the inconvertibility of yellow fever with any other disease; (b) the certain recognition of the disease through clinical histories found in its earliest records and down to the present time; (c) by the fact that it is portable from one place to another and produces identically the same disease in places to which it has been carried. (3) The opinion that the poison is in its essential nature an organism finds support in the following facts: (a) It reproduces its kind in successive crops; (b) certain climatic conditions, as a suitable warmth and moisture, favor its development, while this is arrested by extreme heat or cold. (4) It is reproduced chiefly, if not wholly, within the body, but undergoes some change after its escape from the body which increases its toxic qualities; it possesses ponderability and some certain unknown quality which causes it to adhere to solid surfaces. On account of these characteristics of the germ, the disease is seldom communicated from the persons of the sick, but it is generally contracted by visiting infected localities or by contact with infected things. (5) While yellow fever poison is an air-infecting agent, this quality is confined to a limited area. It is, therefore, wholly dependent upon human travel and commerce for propagation to any considerable distance from an infected place. (6) The atmosphere appears to be the medium of its introduction to the system, as no instance is on record showing it to have been received with food or drink. (7) Clinically considered, yellow fever is a self-limited disease of one paroxysm, and the blood depredation due to the primary action of the poison is accomplished during this paroxysm. (8) As the disease cannot be intercepted, or jugulated, or cured by antidotal or eliminative treatment, its therapeutics is limited to those medicines which are useful in control-

ing symptoms. (9) The only safe prophylaxis is to keep unprotected persons out of the range of infection either of localities or things, (a) by a rational system of quarantine, (b) by a careful isolation of the sick, (c) by cleansing and disinfecting all localities and families.

LACTIC ACID AS A HYPNOTIC.—Dr. Maragliano reports (*Rivista Sper. di Freniatria—Brain*, April, 1880) the results of some experiments upon the hypnotic and sedative influence of lactic acid upon the insane. It had been shown by Ranke and Preyer that the artificial introduction into the system of lactic acid and other products of retrograde metamorphosis are capable of producing weariness and sleep. Drs. Maragliano and Sepilli tried the effect of lactic acid and lactate of sodium as a remedy for sleeplessness in about a hundred cases of insanity. They found that if given (lactic acid in doses of 8 to 10 grammes, lactate of sodium 12 to 15 grammes) three or four hours before bedtime, they were sufficient to subdue the insomnia of quiet melancholia; but they had little or no effect if given immediately before going to bed. In more decided cases of agitation and sleeplessness they were found far inferior to chloral and morphia, besides being too costly for ordinary use. They were also apt to produce nausea and vomiting.

BROMIDE OF POTASSIUM AS A LOCAL ANÆSTHETIC FOR THE URINARY AND SEXUAL APPARATUS.—Bromide of potassium has long been used as a local application to the throat and larynx to diminish sensibility. Acting upon this suggestion, J. Kijanizyer (*St. Petersburg Med. Wochenschr.*, No. 51, 1879—*Medical Record*) applies it in a similar manner, and with similar effects to the genito-urinary apparatus. He injects a solution of the salt into the urethra, when the latter is the seat of painful, acute or chronic inflammation in strictures and in cases of frequent pollutions. In urethritis he says that the pain, redness and tumefaction of the mucous membrane decreased rapidly, the discharge diminished, and soon disappeared entirely with the aid of mild astringents. In a case of stricture, with chronic urethritis and painful micturition, where the urethra was extremely sensitive, and the severe pain prevented the introduction of bougies, in spite of the use of cannabis indica and belladonna salve, a bougie was introduced with

scarcely any pain after the use of bromide of potassium injections for seven days. Kijanizyer uses eight grammes of potassium bromide dissolved in 180 grammes of water. Four grammes of the fluid are injected two or three times a day and the fluid retained in the urethra a few minutes. From his observations he concludes that the injections are of decided use in all cases where the indication is to diminish sensibility in the urethra and neck of the bladder; in the treatment of strictures with bougies, in inflammations of the urethra and their complications; in chordee, disuria, neuroses, etc., and for pollutions depending upon peripheral causes. He also recommends the local use of the salt as indicated in catarrh of the bladder and of its neck, in increased sensibility of the latter, and for cystic calculi and the like. He considers the effects to be due to the diminished irritation and lessened quantity of blood in the inflamed tissue.

Surgery.

SUTURAL REUNION OF DIVIDED NERVES.—(*Virg. Med. Monthly*, Jan., 1880.)—Dr. Dabney, at the close of an interesting communication upon this subject, draws the following conclusions from the facts and cases detailed therein. (1) The effects of nerve-section and nerve irritation are very dissimilar, but have generally been confounded. (2) Nerve section causes a very gradual degeneration of the peripheral portion of the nerve, and of the muscles to which it is distributed (if it is motor in function), several months usually elapsing before such a result occurs. (3) If re-union of a divided mixed nerve take place, sensation is usually recovered first and motion more slowly, the irritability of the muscles returning gradually. (4) The two ends of a divided nerve should be approximated as nearly as possible; but re-union has several times occurred in young subjects when the ends were an inch or more distant from each other. (5) It is advisable to stretch the two portions of a divided nerve in order to approximate them more closely if they are far removed from each other. (6) Sutural re-union may be practiced several months even after the division of a nerve, so long as a trace of muscular irritability remains and the peripheral portion of the nerve contains nerve fibres. (7) Small, carbolized catgut sutures are preferable; and the nerve sheath only should be pierced.

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Original Communications.

A Clinic on Cases of Nephritis, Chronic Catarrhal Gastritis, Enlargement of Gall Bladder, Leucæmia, Chronic Rheumatism, etc, etc.

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GENTLEMEN:

YOU may remember that this young man was at our clinic last Thursday, and that he gave us a history at that time which left us uncertain whether he was suffering from chronic diffuse nephritis, or chronic parenchymatous nephritis. He has been sick for a year, and the prominent features of his illness have been the existence of a moderate amount of dropsy which is now diminishing, and a certain amount of anæmia. He has become paler than he should be. With this there has been a little disturbance of the stomach, but there have been no other symptoms of any great consequence. His urine has been examined during the week since last Thursday. He has been passing between two and a half and four pints of urine every day since last week. That is pretty nearly the normal amount of urine. He has been passing somewhere about forty ounces during the twenty-four hours, and between forty and fifty ounces is about the amount of urine passed by a healthy man.

The specific gravity has varied between 1015 and 1023. That is, the specific gravity is constantly a little below normal, but not much below the normal. The specific gravity of normal urine is about 1025.

His urine has contained albumen in considerable amount, from thirty to fifty per cent of albumen, and this albumen has been constant; it has been found in both the morning and evening urine during the whole of this time.

The urine has also contained casts, hy-

aline casts and slightly granular casts. The casts, however, have not been constant. They have been found in some specimens of urine, but there have been other days during which the casts have not been found at all. And when the casts were present they were present only in moderate number.

So, now, we have the information derived from his urine to complete the diagnosis. We have then a man sick over a year, suffering from dropsy, from anæmia, and some little loss of general health; we have him passing urine in about normal quantity, with the specific gravity a little decreased, containing a considerable amount of albumen, the albumen being constant, but containing only a few casts; these casts, hyaline and granular, sometimes present, sometimes not present.

This examination of the urine will leave us more or less in the condition of doubt in which we were before the examination of the urine was made; that is, as to whether he is suffering from chronic parenchymatous nephritis or from chronic diffuse nephritis. The urine can hardly be said to be thoroughly characteristic of either condition. That is, it is not so thoroughly characteristic of one of these conditions that it could not belong to the other. A man could pass such urine as this either with parenchymatous nephritis or with diffuse nephritis. I should be afraid, however, that the probabilities are that he is suffering rather from diffuse nephritis than from parenchymatous nephritis. The small number of casts in proportion to the albumen would rather point in this direction. When parenchymatous nephritis has lasted for some little time the proportion is rather the other way; the patients have albumen in the urine, but they also have casts and casts in considerable numbers, and the casts are apt to be a more constant feature than albumen; whereas with diffuse nephritis

the conditions are the other way; the albumen is apt to be more constant and in larger quantity than are the casts. Still I, by no means, feel certain that this is the case here, though I should think it is probable that he is suffering from ordinary chronic diffuse nephritis.

Then the question comes up as to the treatment. The treatment would not be influenced particularly by the nature of the disease. The treatment would be the same whether he is suffering from parenchymatous or diffuse nephritis, although the diagnosis would be different.

The principal indication for treatment in this case, I think, is the condition of the blood. The dropsy is no longer a very prominent feature, but the anæmia is still well-marked, as the face not only is pale, but the lips are pale. His blood is thinner and more watery than it should be. The indication, therefore, is to give him iron, and to give it in considerable doses. For this purpose we will put him upon the use of the tincture of the chloride of iron, and we will let him take eighty drops of this a day; four twenty drop doses a day. Then in addition to this I think he will also be benefited by the use of the bichloride of mercury in small doses. He may have this made up in the form of pill or in the form of a solution with the infusion of gentian, and take a twentieth of a grain of the bichloride of mercury three times a day after his meals—that would be the medicinal treatment.

In addition to this his diet should consist of as much fat as he can digest. He should take either milk or cream, or cod-liver oil if he is able to digest it. If he is not, then he will be better without it. Besides this he should eat as much plain and nourishing food as he has any appetite for. He should wash himself thoroughly every morning so as to keep the skin perfectly clean and the pores of the skin open. He should keep himself clothed with flannel from head to foot, and as the weather is becoming pleasanter now he should be out more and more in the open air every day.

The case is a fair example, gentlemen, of the difficulty that you will sometimes meet with in making a positive diagnosis between these two conditions, and I do not think you gain anything by trying to make a positive diagnosis when you have not the elements

for it. In cases like this which are really uncertain it is better to acknowledge to yourself at once that the diagnosis is uncertain for the present. Of course, the further progress of the case will make it certain enough.

We have here, gentlemen, a boy nineteen years of age, who has been employed as a light-porter, and who tells us that for two years he has been troubled with vomiting. The vomiting has been preceded by pain, and has followed the ingestion of food. A short time after he eats he has pain, then he vomits and the pain is relieved by the vomiting. This vomiting has occurred pretty frequently during the last two years. But during the last two weeks it has become more frequent and more annoying, so that now he vomits almost everything that he eats. His bowels, he tells us, in spite of the vomiting, move every other day; so that in spite of the vomiting a certain amount of the food does remain in the stomach, is digested, and passes into the intestine. He has become considerably emaciated, and we find upon examination that his intestines contain less solid material than do the intestines of a healthy person. Excepting this we find nothing on physical examination.

Such a history as this evidently points to a condition of the stomach. Such vomiting as this, occurring soon after the ingestion of food, preceded by pain and the pain relieved by the vomiting, evidently depends upon the condition of the stomach. The conditions of the stomach which can give such symptoms as these are, in the first place, simple chronic catarrhal gastritis. That alone is capable of giving such symptoms as these. Then besides this condition of chronic gastritis there might be stenosis of the pyloric end of the stomach, and this stenosis of the pyloric end of the stomach can be due either to inflammatory changes or it can be due to a new growth. The age of the patient is such that we may throw out any malignant new growths. It is hardly possible for a boy of this age to be suffering from cancer of the stomach in any shape. Therefore if there is any narrowing of the pyloric end of the stomach it is due to inflammatory changes.

Then besides this the inflammation of the stomach instead of being a primary condition might be dependent upon other causes. It may be associated with chronic Bright's

disease, or it may be associated with cirrhosis of the liver. But this young man is too young to have cirrhosis of the liver, and besides he gives no other symptoms of it. I do not think it probable that he is suffering from Bright's disease, but still it is not best to neglect an examination of the urine in such a case. If the disease of the stomach is a primary one, then the diagnosis would lie between simple catarrhal gastritis and catarrhal gastritis with stenosis of the pylorus. It would be pretty certain that he is suffering from one or the other of these conditions. Of course, if he is suffering only from catarrhal gastritis the prognosis is much better than if he is suffering from gastritis with narrowing of the pylorus. When the pylorus is narrowed, is stenosed, we always find that the effect produced upon the nutrition and the health of the patient is much greater than if there is gastritis alone. The patients vomit just the same way under either circumstances, but if the pylorus is narrowed the patients emaciate much more rapidly; they lose flesh much more rapidly, and they are almost certain to have well marked constipation. There may be constipation with the other condition. If there is stenosis of the pylorus it would be very improbable that the man would continue to have a passage from the bowels every other day, as this man has; and I think the loss of general health and general strength is not quite sufficient to indicate so grave a condition as stenosis of the pylorus, so that I hope it is simply catarrhal gastritis.

We have now obtained a specimen of his urine, and we find on examining it for albumen that none is deposited at all. I think then we may fairly put the case down as one of well marked chronic catarrhal gastritis which has continued for two years, and is worse now than previously.

In a case like this putting the patient upon a milk diet will often answer a very good purpose. Putting them exclusively upon a milk diet, giving them nothing else to eat and without any medicine at all, they will sometimes be very much relieved, and the relief may be permanent. In other cases, however, the experience will be the same as with this boy, that the milk answers for a time and then it ceases to afford relief and distresses the patient as much as other food. When this is the case much the shortest and

best way of treating these cases is by means of the stomach pump. This boy would be a very good case indeed for treatment in that way. His stomach should be washed out every day at some convenient time, and he should be put upon a regulated diet; a diet composed partly of milk, partly of meat, with very little bread, and perhaps some fruit. And if this treatment is carried out, he will probably be relieved very much within a week, and will probably be cured within the course of a moderate length of time.

This woman, gentlemen, complains of trouble with her liver; for two years she has felt pain over the region of the liver, but she gives no history of jaundice, nor of sudden and severe pain at any particular times. She says she passes a black, corrupt looking matter from the bowels, which, however, is sometimes yellow. On making physical examination we find a tumor connected with the liver; a tumor which moves very little except with the liver; a tumor which feels pretty firm, and yet not very hard, and which is tender and gives the woman pain. It is not quite so large as your hand, and is in the region which you see here. Now, what is that likely to be? "Hydatids." Hardly; hydatids are very rare in New York, though they do occur occasionally, but when they occur they do not often make such a circumscribed projection from the liver as that. It is apt to be a more diffuse tumor; gives you the effect as if the whole liver were enlarged with perhaps a protuberance in some place. But you will observe that this is a pretty circumscribed tumor, although it is connected with the liver. It is connected with the lower surface of the liver, but the liver itself is not enlarged. "It may be distension of the gall bladder."

That is quite probable. I think that the position and outline would suggest that to you. You will observe that it is just about where an enlarged gall bladder ought to be, and it has most of the characteristics of an enlarged gall bladder. It is connected with the liver; it moves with the liver; it is moderately moveable; it causes a certain amount of pain; it has the outlines that you would expect an enlarged gall bladder to have; and the woman's general health is perfectly good. She is in good condition; she is well nourished. The effect upon the general health is not at all marked.

I do not know how nearly her story represents what her attending physician may have said to her, but her own story is rather curious. I sent her out before drawing your attention to her true condition, for she thinks that she has two livers, one of which is enlarged and presses upon the other, and she seems to be rather uncertain whether one of these livers is a real liver or whether it is a wen, and the object of treatment has been to remove one of these livers or the wen, whichever it is.

Unfortunately there is really nothing in particular that can be done for the relief of this condition. The gall bladder is enlarged which enlargement is of course due to obstruction of the cystic duct. That obstruction of the cystic duct may be due either to an impaction of the follicles in it or it may be due to inflammatory changes which have narrowed the duct. She gives no history of jaundice; she gives no history of biliary colic. Still it is tolerably common without a history of jaundice or of biliary colic to find one or more calculi in the gall bladder and in the cystic duct. Whatever is the cause, we can do nothing to relieve it. The condition is not bad enough to warrant any operative interference. It would be quite unjustifiable either to tap this gall bladder or to cut down and open it, for it is really nothing but an inconvenience to her. It gives her a certain amount of discomfort, but her general health is good. There can also be no particular object in keeping up the use of any purgative medicine which she has been taking. Of course if the bowels be constipated she will be better off for having them open, but so far as the condition of the gall bladder is concerned there is no indication for purgation or for anything else. It is simply a condition which the woman will have to put up with. It is possible that it may continue of its present size. It may never get much better than it is now. If that should be the case she will go on suffering a certain amount of pain; that is all. If however, it becomes a good deal larger, then her general health will be interfered with, and then the question of operative interference of some sort will come up.

Gentlemen, we have here a young girl, eighteen years old, whose mother tells us that she was quite well until four months ago. Four months ago her mother noticed

that the glands in her neck were becoming swollen. This increase in size of the glands has apparently gone on very rapidly since that time, for now we find a very considerable number of the glands enlarged, and considerably enlarged, the glands affected being principally the glands of the neck, the glands running down from the neck into the thoracic cavity and the axillary glands. The inguinal glands she says are not involved. The tonsils are a little enlarged, not very much.

The girl's color as you will observe is still quite good, and she apparently complains of nothing except this enlargement of the glands. The mother states that the girl has not been unwell for four months; that is, that her menses have not come on the past four months.

That makes the whole of the case then. A girl having no symptoms except the cessation of the menses, and presenting herself with a number of enlarged glands as you see. I should say also that the spleen is enlarged. Now, what is the matter with her? "Leucocythæmia." Yes, probably. Of course, we can not be certain of that without examining the blood. It is possible for a person to have such enlarged glands as this girl has, and have an enlarged spleen also, and yet not have leucocythæmia. There may be no increase of the white blood globules at all. What would the patient be suffering from then? If we examine this girl's blood and do not find any increase of the white blood globules—"Anæmia." Well, simple anæmia would not account for the enlargement of the glands. "Struma." Well, that does not mean much, doctor. There are two conditions with which we meet which are alike except as regards the condition of the blood. We have the same enlargement of the glands with or without enlargement of the spleen in both cases. But in one set of cases there is an increase of the white blood globules. This we call leucocythæmia or leucæmia. In the other state the glandular changes are the same, but there is no increase of the white blood globules. Now, what is it called? "Leucocytosis." No, the word leucocytosis is applied to cases in which there is a slight increase of white blood globules; cases which are not fairly cases of leucocythæmia and yet in which there is a little increase of the white blood

globules. But we are supposing now that when we come to examine the blood we will find no increase of the white blood globules. We can not tell yet whether there is or is not. If there is, then the case is one of leucocythæmia; if there is not, then what is the trouble? There is a disease which is usually called pseudo-leucæmia, or false leucæmia. That is, a disease resembling leucæmia or leucocythæmia (for those two words are used in the same sense,) but yet without the characteristic change in the blood. Those two conditions, leucæmia and pseudo-leucæmia are very closely allied indeed. The cases run very much the same course; they present very much the same symptoms, and really the only apparent difference between them relates to the condition of the blood.

In either case the treatment is the same. If the patients at the time you see them are not anæmic, then you direct your attention to the reduction of the size of the glands. If they are anæmic they may be so either with or without an increase of the white blood globules. You observe that by anæmia we do not mean an increase of the white blood globules. We mean a decrease of the red ones, and a patient may come to you like this girl, with enlarged glands and she may be anæmic or not. In this case she is not. The color is still good. In this particular case then the duration being short, and the condition of the blood so far as the red blood globules is concerned being still good, we shall direct our attention directly to the condition of the glands.

Now, there is one drug which has special power in diminishing the size of the lymphatic glands if they are enlarged, and that drug is iodine. And for this particular purpose, if you want to get the real effects of the iodine the best thing you can do is to give it in the form of Lugol's solution; of Lugol's solution of iodine. And you will give the girl, to begin with, five drops of this; five drops taken in water three times a day, and taken after meals. The only objection to this medicine is that some stomachs will not bear it. It makes some persons so sick at the stomach that we are unable to give it to them, but I imagine that this girl will be able to take it. That will be the first thing for her to do. Begin the treatment then with Lugol's solution in five drop doses three times a day; continue that for a

week. Then the dose should be gradually increased by a drop at a time until she shall take ten drops three times a day. That is one plan for treating these cases if you see them in the condition in which this girl is, the general condition being still good.

Another plan is to get them under the constitutional effect of arsenic. You give them arsenic in increasing doses until you have reached a point of tolerance. Then you stop the arsenic for a time and allow the patient to recover from its effects. Then you can repeat this again. This plan also has considerable effect in diminishing the size of the glands, but generally speaking I think the iodine treatment is to be preferred. If however the patient was anæmic at the time you saw her; if we were to see this girl a year from now, she having been left to herself, and should find the glands larger than they are now, and we should find that instead of having the color which she has now she should be very pale; she would be anæmic. Then we could do nothing with our iodine. Then we should have to put her upon the use of iron and oxygen. We would treat her as we would any other case of anæmia.

This man, gentlemen, has had rheumatism since the last day of February. For six or seven weeks he was confined to his bed, after which time it got better and he had been able to move around, but it has been worse at sometimes than at others since the severe attack. It has affected his knee, shoulder, wrist, and other joints. He did not suffer pain except when he moved.

The man has a murmur with the first sound of the heart; a systolic murmur. It is heard very distinctly at the apex, but is not heard at the base. It is transmitted as far around to the left as I appreciated it with my ear. In other words it is a mitral systolic murmur; a murmur probably indicating a regurgitation at the mitral valve, denoting insufficiency of the mitral valve, and the probabilities are that this condition of the mitral valve is connected with his rheumatism,—that at the time he suffered from the acute attack of rheumatism which began in the latter part of February there was at the same time a rheumatic endocarditis, and that rheumatic endocarditis has resulted in a thickening and shortening of the attachments of the mitral valve. The heart's ac-

tion, however, is perfectly regular, and the heart is of its proper size. The impulse is as it should be, so that I should not lay so much weight upon this condition. The mere existence of insufficiency of the mitral valve, if the heart works well in spite of this is in certain cases a matter of but little consequence. The patients seem to be about as well off as patients who have no insufficiency of the mitral valve.

The case then seems to be a straightforward case of common articular rheumatism involving a considerable number of the joints, the attack coming on as an acute attack, the patient being confined to bed for six or seven weeks and then getting better. But still even at the present time he is not well. That is the way in which a certain number of these cases of rheumatism behave. The patients run through a regular attack of acute articular rheumatism, but at the end of that time instead of being perfectly well, instead of the joints being in as good condition as they were before the patient was taken sick, they are left with joints like this man, joints which trouble them; joints which some days are a little better, which some days are a little worse, and which are bad enough to prevent them from working. This condition of the joints may or may not be associated with changes in the general health. Some of these patients will become pale, anæmic, emaciated; will be run down in addition to the persistence of the joint trouble. In other patients, as in this man, the general condition will be pretty good, although this man when he is well, I imagine, is a very much more robust looking person than he is at present. He is naturally a large man; has a large frame, so that even now he looks larger than most of us, but I imagine that when he is well his condition is quite different from what it is now.

The question of course is, what is to be done for such a patient? It is important for this man to be able to get to work as soon as he can. There are two remedies which I think are of especial service for patients in this condition, and those two remedies are: the iodide of potassa administered internally, and sulphur baths used externally. Both of these remedies are of considerable value, and it is well enough to combine them; to let the patient take the iodide of

potash in moderate doses, ten grains three times a day is plenty, and take a sulphur bath every other day. If the patient is one whose circumstances will allow it he will do very much better by taking a natural sulphur bath; by going to Sharon, or to Ritchfield, or to the Virginia springs, and take natural sulphur baths. But for persons who are not able to do this fortunately there are artificial sulphur baths which are not indeed as good, but which still answer the purpose, and those can be taken at the different bathing places in the city. That I think will be the plan for this man to carry out: to start with the use of the iodide of potash, and if he is able to afford it three times a week to take a sulphur bath.

This woman, gentlemen, says she suffers from pain about the abdomen, and on closer questioning we learn that she has a running as she says apparently coming from her stomach through the umbilicus; this sore discharges at times, and when it does so the pain is relieved. It would seem to be a surgical case, but we will examine it and see what it is. Sometimes there are sinuses connected with the umbilicus which run some little distance inwards, they do not really run into the abdominal cavity; they run between the layers of the abdominal wall, but if they extend deeply as they sometimes do they may behave as in the case of this woman. They may continue as an open sore, part of the time discharging, part of the time not. An open sinus will sometimes partly heal up and then the matter will collect behind this healed up opening, and then the patient will suffer pain, and then after the matter has collected up to a certain point the sinus will get open again, and the matter will discharge, and then the patient will be pretty comfortable, as is the case with this woman.

The ease with which they can be cured usually depends a good deal upon the depth of the sinus. If the sinus is not too deep, so that you can carry applications thoroughly to the bottom of it, you can often heal it up in that way.

On examining the patient you observe that we have here a little fistulous tract, or a pouch in the skin into which I can insert the end of my little finger a considerable distance. It is simply a hole in the skin. There is no ulcerating surface there, but

when the skin gets deranged in this way the character of the skin changes somewhat, and it becomes more like a mucous membrane than like the regular integument, and when this is the case the skin will behave something like a mucous membrane. It may become the seat of a kind of chronic inflammation which is very much like a chronic catarrhal inflammation of a mucous membrane, and in that way there will be a little discharge of serum and a little pus from the surface of the skin without there really being any desquamation of the epithelium to any extent, or the formation of any real ulcer, or of any real sore. And the thing is to be treated very much like any chronic inflammation of mucous membrane. The real difficulty is that this little pocket of the skin will always be there for it is not really bad enough to make it worthy a surgical operation. Of course by a little plastic operation you could get rid of this little pocket altogether, but really the matter is hardly bad enough to make that warrantable, so that the best thing that she can do is to keep that pocket stuffed with a little cotton, and to cover this cotton with a mixture of iodoform and tannin,—have a powder made of equal parts of iodoform and tannin. Let her take a little cotton and sprinkle the outside of it with this powder, and then pack the pouch with that, and in that way the surfaces of the skin will be kept from coming in contact with each other, and at the same time the powder will have a tendency to gradually heal the diseased condition of the skin.

Our next patient; a man who has long had lateral curvature of the spine, complains of irregular feelings of heat and cold, of irregular perspirations, a loss of appetite, and a general feeling of being good for nothing, all of which is probably due to one cause, that cause being what produces intermittent and remittent fever. In other words he is suffering from an irregular sort of what is called malarial fever, of which we see a good deal in New York. A good many persons are sick in just about the way that this man is. They have no regular paroxysms of intermittent fever; they have no continued remittent fever but they simply get good for nothing, they lose their appetite, and some days they will have a little fever, and on other days they will feel a little chilly.

This fever may be attended by a little perspiration, but it does not come at regular intervals. There may be nothing regular about it at all.

These patients can be treated in the ordinary way, either by quinine or by arsenic. I have rather a preference, myself, for the use of arsenic in these irregular cases. The regular paroxysms of intermittent I think are best treated with quinine, generally speaking; but in the irregular forms, like this, I think that arsenic is generally to be preferred, and in this man who is already somewhat anæmic, the arsenic can be very well combined with iron. We will let him take for example, three drops of Fowler's solution of arsenic three times a day, and with this twenty drops of the tincture of chloride of iron. He can take these together three times a day, and this he will have to keep up for some little time.

This man, gentlemen, is a hackdriver, and you will observe that he is quite heavily built, is quite large, and has a florid complexion. He complains of a rush of blood to the head which on a few occasions has caused him to lose consciousness for a moment and to fall off the stage, but it does not continue more than a minute or so. The case indeed is a straightforward case enough of vertigo. The attacks which the man has had have evidently been attacks of vertigo, although he speaks of them as a rush of blood to the head. He is dizzy from time to time, and on several occasions while driving this dizziness has been so great that he has fallen from the carriage to the street, but the dizziness has been of very short duration. He has been able to get up and go about his driving again. This shows at once that the attacks of unconsciousness were not due to any real cerebral lesion at all or they could not have been of such short duration. The man felt as well after them as he had before. He says he is temperate at the present time, and he is, as you observe. A large stout man, with a good deal of blood in him.

The first thing I think to do for this man will be to act upon the bowels a little, not to purge him to any great extent, but to keep the bowels rather looser than is natural for some little time. Then after this to put him upon the use of ipecac and of soda in moderate doses, and keep this up for some little length of time. Perhaps one of the mineral

waters will be the best means of acting on the bowels, the Friedrichsthal water, or the Hunyadi water—any of the waters that will act moderately upon the bowels. He should take every night such an amount as to give him one or two pretty loose passages the next day. Then after doing this for about a month he should begin with his ipecac and soda, and take about a quarter of a grain of ipecac and ten grains of soda three times a day.

It is also important that he should manage at some time in the twenty-four hours to get as long a walk as he can. It is one of the troubles of coachmen that sitting constantly on a box, and only using the muscles of the arms and thorax to any extent, they are apt to become a little stout; they are apt to have derangements of digestion which give rise to these attacks of dizziness, for these attacks of dizziness are simply symptoms of disordered digestion, and it is very well for them if they can take a long walk. There is a difference among coachmen's habits as to whether or not they clean their own horses, or whether they only drive. They are better off for all the exercise they can get in addition to the driving. The driving after a time ceases almost to be any exercise for these men who are used to it, and it is apt to make them stout, and to disorder the digestion in this way.

Medicinal Doses and Therapeutic Effects.

BY H. CULBERTSON, M. D.,

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Mr. President and Gentlemen of the Zanesville Academy of Medicine:

ONE hundred years ago Hahnemann enunciated his therapeutical law, "*similia similibus curantur*." Hippocrates (B. C. 460) had promulgated the same law, but to the former belongs whatever credit is due in founding the so-called system of homœopathy. Hahnemann took Peruvian barks, which he thought produced symptoms of ague in his own person, and claimed, therefore, that cinchona was the remedy for ague, because it (barks) induced symptoms similar to those found in ague. That ague is produced by cinchona is refuted, so far as its origin from the plant is concerned, by the researches of Mitchell, Salisbury and others. The former referred the cause of this disease to certain cryptogamæ, the lat-

ter to several forms of the *Palmellæ*.* We do not understand Hahnemann as claiming from his experiments (of which those with "the barks" were but one) that medicines act therapeutically from being *identical* in their nature with the several causes of disease (though this is sometimes affirmed), but that medicinal agents control disease per force of the fact that the agents are not *identical* in nature with the causes of disease, and are yet capable of inducing in the human body similar phenomena to those produced by disease when exhibited. It will be seen then that the foundation of this doctrine lies in the non-identity or the difference in the nature of those causes which produce disease and the character of the agents given to cure maladies. The remedy acts therapeutically, not because it develops an element of similarity to disease, but from the very fact that it reveals the character of non-identity to the traits of disease in its effects. The dogma could not be maintained for a moment, that *identicals would cure identicals*; this would be nonsense. So then, it was held that the nearest approximation to this motto should form the basis of the homœopathic system, viz., "*like cures like*." But as it is clear that identical causes acting under the same circumstances could not produce different effects, it follows that the causes of disease must be different in nature from that of the remedies given to cure disease. Hence we are driven to the conclusion that the whole remedial power of medicines lies in the fact that the causes of disease and the agents given for their cure are not similar in their nature. Just how medicines act to produce their effects no one can determine—we only know results, first causes are beyond our scope. Why oil accelerates and opium retards the action of the bowels no one has been able to demonstrate. We rest then upon clinical facts in the cure of disease, as the physicist does upon phenomena, and it is a fact equally palpable, that the homœopathist cannot prove that his cures rest on the law "*similia*," but only that a remedy when given effects the cure he really knows not how. This is only clinical experience. Hahnemann himself did not hold that to cure homœopathically it was absolutely essential that the doses should be infinitesimal, but that such minute doses did

*Am. Jour. Med. Sci., N. S., Vol. 51, p. 62.

not perturbate the general system and served to favor the action of the agent. It is, too, I understand, a fact that modern homœopathy permits the use of medicines in full doses. From these considerations it is evident that there is no true foundation for the system of homœopathy. We may, therefore, hold that the law of "*similia similibus curantur*" will not account for the "*modus operandi*" of medicines upon the animal body, and proceed to the consideration of the histological relations of our subject. What influence does the minute structure of organs exercise in producing the diverse remedial effects observed from medicines in the human body? In endeavoring to solve this query it will be necessary to investigate the characteristic structure of a few of the organs of the body, so far as to consider the connection the nerves have with these.

The Skin—The pacinian corpuscles are composed of a homogeneous nucleated membrane or sheath, within which is a series of laminated structures. The medullated nerves enter the cavity of the innermost capsule, and the axis nerve cylinder now runs to the blind extremity of the capsule and terminates in one or several small tuberosities and is surrounded by the nerve medulla, which fills the cavity of the innermost capsule. A large blood vessel enters near the nerve fibre and forms an abundant capillary net-work between the outer capsules (Biesiadecki).*

Meissner's or Wagner's corpuscles, palpation corpuscles. The medullated nerves enter these, but the manner in which they end within them is not known.†

The non-medullated nerve fibres of the skin terminate in the rete-mucosum, beneath the epithelial layer of the skin, in knob-like distensions.‡

The sensitive nerves of the cornea terminate in the cells of the most superficial layer of its epithelium (Rollett).§

Schultz|| believes that the rods and cones of the retina are the terminal organs of the optic-nerve fibres, and that it is highly probable that the inner and outer segments of these structures have a common envelop, but adds that every other method of continuity between them, for instance, by interior nerv-

ous fibres, is a bare hypothesis. It is clear then that these retinal nervous fibrils have at least an external covering.

Iris—The ultimate termination of the nerves of the iris is not ascertained.¹

Iwanoff² states that the vessels, nerves and muscles of the iris are embedded in a stroma, which consists mostly of connective tissue fibrils and cells.

Organs of Smell—Babuchin³ states that the distribution of the ultimate olfactory fibrillæ after they have reached the epithelial layer is not known. He denies that they reach the surface of the epithelial layers, as in the cornea.

Organs of Taste—Engelmann⁴ states from his investigations that it is highly probable the nerves of taste after entering the "taste buds divide into ultimate fibrils, which are continuous with the central processes of the "taste cells" of the "taste buds." In the mucous membrane of the tongue are found sensitive nerves which terminate in the papilla, and the ends of the ultimate filaments of which are surrounded by miniature pacinian bodies.⁵

In the stomach the branches from the pneumogastric nerves and from the solar plexus form gangliform plexuses both between the layers of the muscular coat and the submucous coat, the ultimate ending of which has not been traced.⁶

The nerves of the small intestine are chiefly derived from the superior mesenteric plexus. These nerves first form Auerbach's or the muscular plexus. Branches proceed from these and form a second gangliform plexus in the sub-mucous layer or Meissner's plexus. Fibres pass from this plexus to the muscular elements of the mucous membrane proper, while excessively fine fibrils are sent inwards towards the epithelium; but the further course of these filaments has not been traced.⁷

Hering⁸ says that all demonstrable nerves lie outside of the lobules of the liver, and that he has never been able to find them on the inside of the lobules, much less within the liver cells.

¹Quain's *Elm. of Anat.*, London, 1876, vol. ii., p. 605.

²Stricker's *Histol.*, p. 858.

³Stricker's *Hist.*, p. 798.

⁴*Ibid.*, p. 788.

⁵Dalton's *Humany Physiology*, 1871, p. 359.

⁶Quain's *Anat.*, loc. cit., vol. ii, p. 356.

⁷Quain, loc. cit., vol. ii, p. 368.

⁸Stricker's *Hist.*, p. 427.

*Stricker's *Manual of Histology*, p. 550.

†*Ibid.*, p. 551.

‡*Ibid.*, p. 552.

§*Ibid.*, p. 929.

||*Ibid.*, p. 636.

Kühne⁹ says that the motor nerves end in the terminal "nerve-plate" beneath the sarcolemma of the muscle cell. This plate is surrounded by granular protoplasm and nuclei. The extremity of the nerve never dips into the interior of the contractile cylinder.

Pflüger¹⁰ holds that the ultimate fibrils of the salivary nerves end in multipolar cells, and that the latter connect directly with the salivary cells.

According to Schultz,¹¹ it is undecided whether the ultimate fibrils of nerves originate in the ganglion cells, or only pass through these cells by the multipolar processes. It is known, however, that these fibrils enter these grey nerve cells.

Speaking of blood vessels, Eberth¹² says, "with the exception of the capillaries, the presence of nerves has been demonstrated in all vessels," * * * he adds "he has not been able to convince himself of the precise mode in which they terminate."

We may add what is known to be a fact, that there are many structures of the body in which nerves have not been found by the most approved methods of investigation, and that the lining layer of blood vessels has not been shown to contain nerves.

The minute structure of other organs might be considered, but that of a sufficient number of these has been given to show that there are no terminal nervous filaments found absolutely exposed. Even in the cornea its nerves are surrounded by at least the edges of the external epithelial layer and the corneal cement. Nerves of special and common sensation are clothed by some form of investment, so that impressions are not made upon the terminal and exposed nerve ends. Generally the structures about these nerve endings are supplied with blood capillaries, through which medicinal substances may pass ere reaching and impressing the ends of nerves. It is possible that medicinal agents might pass through the structures about the nerve ends, without entering the blood vessels by osmosis. But if we consider the stomach, and that its mucous membrane is freely supplied with blood vessels, and that its nerves do not penetrate its epithelial layer, and that sensitive impressions are

made upon the terminal extremities of nerves, it is probable that medicinal substances ordinarily enter first the circulation and finally reach the nerve endings after having traversed the rounds of that system.

It may be that some form of remedial influence can be exercised by osmosis taking place through the structures which surround the nerve ends, without entering the general circulation, provided such remedies can pass through these accessory structures without being themselves changed in the transit or modifying these delicate textures. I do not know that such direct transit ever takes place, but it is a fact that atropia introduced subcutaneously will paralyze sensibility; whether this effect is due to the influence of the agent on the peripheral extremity of the nerve, or its action on the ganglia of the spinal cord, is a very difficult question to decide.¹³ We know positively that the sciatic (a motor nerve) can be rendered completely unirritable—its motor irritability killed—by atropine, introduced subcutaneously, while the muscles supplied by it retain their irritability, and that woorari "kills the intra-muscular nerve endings," "leaving the sensory nerves and sensory ganglia intact."¹⁴

We know, too, that such agents may be introduced subcutaneously and their paralyzing influence be observed in distant parts of the animal body, showing that such effects have been produced by the agents traversing the rounds of the circulation. On the other hand, if we take a frog, remove the cerebrum, dissect out the gastrocnemii and place one in a 1 per cent. solution of salt and the other in a solution of sanguinaria, it will be found that the latter muscle has lost its irritability from the direct effect of the poison, while the *other* has not. Again, if we expose the ends of the right and left sciatic nerves of a frog, immerse one peripheral extremity in a solution of phosphate of soda, the end of the other nerve in a solution of atropia, "the most that can be said is that the sensory nerves retain their irritability for a considerable time in a 2½ per cent. solution of atropia."¹⁵ This experiment denotes that the peripheral extremities of nerves may be impressed, though not so readily, as through the medium of the circulation.

⁹Ibid., p. 155.

¹⁰Ibid., p. 307.

¹¹Ibid., p. 142.

¹²Ibid., p. 193.

¹³The Action of Medicines, Isaac Ott, p. 50.

¹⁴Ibid., p. 50 and 56.

¹⁵Ott, loc. cit., p. 51.

If we consider the normal action of these peripheral nerve structures, it is found that "this state of physiological action produces no visible change in the nervous filament itself. Its effects are manifest only at the extremities of the nerve, in the organs in which it has its termination."¹⁶

If no physical change is observed from the physiological action, it is possible none might be detected from the influence of medicines. But it does not follow there should be no change observed from a remedial agency, because none is seen from the operation of the normal functions of the body.

From these considerations and others which might be adduced, it may be fairly claimed, that there are remedies which address their influence to the nervous filaments no matter how they reach these, by circulation or osmosis, directly applied. On the other hand, there are substances which influence remedially parts of the body which do not contain nerves, and hence it is evident that medicines do not act universally through, or primarily upon, the nerves.

I pass now to consider a point connected with this subject, which is probably not often thought upon, viz., the absolute quantity of medicine required to produce a remedial effect. We know on the one hand that enormous portions of agents, recognized as poisons, may be reached and taken with impunity through habit. On the other hand, the phases of idiosyncrasy develop how minute quantities of remedies may produce overwhelming effects. Thus, for instance, the 1-50 of a grain of strychnia used hypodermically for the first time (I understand, in an adult), has caused convulsions and insensibility, which continued several hours.¹⁷ Let us look at this dilution. If this patient weighed 150 lbs. avd., and the blood weighed 18 lbs. = 126,000 grains avd., then, in this case, a poisonous effect has been produced by the diffusion of the $\frac{1}{50}$ of a grain of strychnia in 126,000 grains of blood, or a dilution of the $\frac{1}{6300000}$. It is true that up to a certain point, and until excretion of the agent begins to diminish the quantity in the circulation, the effect of the poison is increased by the continual presence of new portions of the agent at a given point, brought thither by the circulation. If we assume that the strychnia was equally dif-

fused throughout the blood, and that the blood circulates every three minutes, then during the two hours that the effects of the remedy lasted a given ganglionic cell of the spinal cord would be impressed by the poison forty times, thus increasing the effect forty fold, which is equivalent to a dilution of $\frac{1}{157500}$. Again, the effect of the poison is no doubt increased by the simultaneous influence it exercises upon the millions of gray nerve-cells of the nervous system, which are more or less intimately connected with each other. Thus considered, if there were a million of such cells, and a $\frac{1}{1000000}$ of a grain of the agent impressing each cell the effect would hypothetically equal the influence of one grain upon one gray cell. It is extremely probable that this hypothesis is true to a certain extent, and if so, it goes far to account for the wonderful influence of certain agents upon the body.

It is not astonishing, then, that half a grain of strychnia has destroyed the life of an adult in 20 minutes.¹⁸ Here the $\frac{1}{100000}$ part of this substance impressed each nerve cell, producing an effect which overcame the vital forces of the nervous system and induced the death.

Two grains of arsenic have produced death in an adult; that is, $\frac{1}{63000}$ part in 1 part of blood acting upon the numerous cells of the body, has induced this result.

The effect of medicinal agents illustrates often how potent the remedial influence is in small doses. Thus, atropine and digitaline given internally in $\frac{1}{60}$ grain doses will produce distinct effects. This is a dilution of $\frac{1}{7560000}$. Again arsenic in $\frac{1}{16}$ grain doses will induce remedial results, a dilution of $\frac{1}{8016000}$. Again, eight drops of tr. verat. virid. will provoke nausea. If in this amount of the tincture there is $\frac{1}{40}$ grain of the alkaloids of the plant, then the remedial agency would accrue from a dilution of $\frac{1}{5040000}$ of a grain.

It may be that these several effects are brought about, in a certain degree, by particular portions of the cell structure of the spinal cord being peculiarly susceptible to the influence of the agents, and thus the action of these becomes more potent in its effects.

When remedies are prescribed by the homœopathist and infinitesimally according

¹⁶Dalton's Physiol., p. 381.

¹⁷Taylor on Poisons, 3d Am. ed., p. 71.

¹⁸Taylor on Poisons, loc. cit., p. 60.

to his therapeutical belief, the attenuation in the blood, of the remedy, is beyond our comprehension. So great is this dilution that no one can comprehend how remedies so attenuated can possibly influence the body. To illustrate: If we dilute a dose of atropine, $\frac{1}{60}$ of a grain, a million times, we will have $\frac{1}{60,000,000}$ of a grain as a so-called homœopathic dose of this agent. But this hypothetical quantity must be further attenuated in the 126,000 grains of blood, and hence, one grain of blood will contain but the $\frac{1}{7,800,000,000,000}$ (the one nine trillion 560 billionth) part of a grain, and which it is claimed will produce a medicinal effect. Common sense and the dictates of reason reveal the absurdity of the conclusion that such a quantity can induce even an imaginary influence.

The therapeutical results cited lead to the consideration of the importance of a resort to reasonably small doses of medicines, as well as the necessity of physicians in the practice of their profession, using concentrated remedies and the alkaloids.

It is not to be denied, however, that, in many instances, large doses of medicines are demanded to secure remedial effects; as tannin in hæmorrhage, and quinia in severe malarial paroxysms. The former may act by coagulating the fluids about the bleeding vessels, and the latter is thought to diminish the calibre of the capillaries. Opium, too, though demanded only in small doses, constricts the finer blood vessels, probably by its influence upon the vaso-motor system of nerves, and derived from the ganglionic nerve centres. But Bence Jones¹ claims that this remedy may act upon the nerve-cells of the nervous masses, by uniting with the *protogon* of these cells for a time, which constitutes the duration of the medicinal influence, then this union ceasing, the agent is removed by excretion.

I need not further consume the time of the Society with this subject. Enough has been said to denote that the mode of action of therapeutic agents is not uniform, that it is possible remedies may act primarily upon the nervous system, upon the vascular, or upon the intima of organic cells. Further, the smallness of medicinal doses has been mentioned—how minute quantities may act remedially; and it has been distinctly claimed

that when remedies act in such minute portions, or in any quantity, that they are not efficient upon the law of "*similia similibus curantur*," and that this law will not lead to successful therapeutics.

These few remarks are rather suggestive than authoritative, and are submitted to the members hoping they will lead to reflection upon the intricate subject of "medicinal doses and therapeutical effects."

ZANESVILLE, O., May 6th, 1880.

Abscesses of the Abdomen.

BY THEO. A. MCGRAW, M.D., DETROIT.

(Read before the Detroit Medical and Library Association.)

ABSCESSES in and around the abdominal cavity differ from ordinary abscesses, 1st, in the difficulty of determining their exact anatomical location, and 2d, in their early tendency to cause septic poisoning, the symptoms of which are apt to obscure those due to the formation of pus.

As regards location, the difficulties which gynecologists have experienced in determining the anatomical seat of an effusion in the roof of the pelvis, pertain also to those lodged higher up in the abdomen. Whether anterior or posterior to the peritoneum, in the abdominal wall or in the peritoneal sac itself, the symptoms may be so nearly identical as to prevent a positive diagnosis.

The last case of this kind in my practice was one under the charge of Dr. Galbraith, of Pontiac. A gentleman was seized with pain at a point midway between the anterior iliac spine and the navel. He had previously suffered from a slight diarrhœa, but had had no chill nor fever. The pain grew constantly worse for a period of three weeks, during which his pulse ranged from 80 to 100 per minute and his temperature from 100° to 102° F. He had in this time but once shown symptoms of gastric irritability, and but once a slight chilliness, but had several times had discharges from his bowels. The circumscribed spot of pain grew more and more tender, and at the end of the second week showed signs of deep induration. This induration grew in extent, and at the end of the third week, when I first saw him, seemed as large as a hen's egg. It was then clearly defined, and did not extend to the liver above, the iliac fossa below nor the kidney behind. The patient, in the third week, grew dull and listless and began to fail in strength. His tongue became dry

¹Braith. Retrospect, Am. ed., January, 1867, p. 239.

and there began to show a little sordes on the teeth. There was evident inflammatory effusion, but the diagnosis of location was doubtful. An aspirator needle thrust inwards to a depth of nearly three inches, tapped a cavity containing fœtid pus of which we obtained about a tablespoonful. The puncture was followed by immediate relief from pain. The swelling continued, however, to increase, and on November 20th Dr. Galbraith aspirated it for the second time. On November 21st the skin over the spot had an erysipelatous line, which soon extended from the ribs to the pelvis. From the orifice of puncture there issued a constant stream of black fœtid pus. I saw the patient again on that evening, and found him evidently worse. The tumor, greatly increased in size, was no longer sharply defined, and extended to the liver above and the kidney behind. Fluctuation could not be detected, and percussion revealed but doubtful signs, as we never failed to detect the intestinal resonance over the whole mass. An anæsthetic was given and aspirator needles were again thrust in various directions into the mass, but without success. We were uncertain whether the black, oozing fluid might not proceed from a gut, but determined, nevertheless to operate. Incisions were therefore made, a little above and inside of the anterior superior iliac spine, through the three muscular layers. It was observed that all, but especially the transversalis, were swollen and friable. At a depth of more than two inches we were still outside of the peritoneal cavity, when all at once the tumor disappeared, and, what was of more importance, the guiding thread of pus. It was only after long searching that I finally discovered a fluctuating swelling much nearer the median line than my incision. Puncturing this, we found our hidden abscess. There was, just outside of the peritoneum, a cavity, about as large as a hen's egg, ragged and irregular, and filled with offensive pus.

The patient, though nearly 70 years of age, eventually recovered, and was considered well until about three weeks ago, when he began to complain of soreness in the old scar. An abscess then formed which discharged a fluid apparently colored with bile. Since then, through the resulting fistula, strawberry seeds and other minute fragments

of food have been occasionally discharged, showing an evident intestinal connection. At no time during the period in which the first abscess was discharging had there been any signs of any intestinal communication. Neither fœces nor fragments of food, nor intestinal gases had then escaped, nor had the pus after its first evacuation been other than laudable. It is probable that the extra peritoneal abscess had first developed and that the intestine had become adherent, and had subsequently ulcerated, producing the present abscess and fistula.

At the time of my operation the abscess certainly seemed to be bounded by and outside of the peritoneum, though I will confess that I was very uncertain, when I began this operation, where it would end, and would not have been surprised if I had eventually opened into the peritoneal cavity, or rather a circumscribed abscess within that cavity. The lack of gastric irritability, the absence of constipation and the semi-resonance on percussion all, it is true, indicated that the focus of disease was outside of the peritoneum. I had but recently had a case, however, which would prove the error of relying too implicitly upon such symptoms in diagnosis.

A girl of twenty-one, a patient of Dr. Cleland, of Detroit, on whom I performed ovariectomy on October 9, 1879, seemed to do well for four days. Her abnormally quick pulse of 120 beats per minute, almost alone indicated trouble. Her temperature, after the fourth day, became a little elevated and irregular, ranging from normal to 103° F. On the eighth day I removed the stitches—and I will say here, that as the tumor had been removed by Miner's method of enucleation, there was no pedicle. The abdominal wound had at this time completely closed by first intention. The patient seemed, in many respects, in first-class order. Her stomach retained all its food, and her bowels had moved freely without any purgative. Her temperature, however, rose to 104° F., and her pulse continued very quick and feeble. The abdomen, though doughy to the touch, was not sensitive. Fluctuation could not be detected. On the tenth day a sudden gush of fœtid pus through a suture hole revealed the trouble. I opened the wound, freely let out a large quantity of offensive matter and inserted drainage tubes, and after this the

patient made a good recovery. Now in this case, in truth, a peritoneal abscess of great size developed without causing chills, or sweats, or nausea, or constipation, and revealed its presence only by the doubtful signs of high temperature, quick, feeble pulse and general prostration.

The semi-resonance on percussion which I have spoken of as a symptom of my first case, I have also had occasion to observe in a renal abscess, situated, of course, behind the peritoneal sac. The history of this case has already been published, but I will say of it now, that I fully established the diagnosis by nephrotomy. In this case, the large, fluctuating tumor behind the peritoneum, occupying a space more than half the width of the abdomen, yielded on percussion the same semi-resonant sound as the abscess of case 1, situated *anterior* to the peritoneal cavity.

Of more importance in determining the seat of an abscess, whether intra or extra-peritoneal, than any of the symptoms mentioned, is the character of the swelling as regards its limitation. An inflammatory tumor, strictly circumscribed, occupies more usually a point outside of the sac of the abdomen, while the more diffuse and doughy masses are commonly intra-peritoneal.

Abscesses forming in the lumbar region, behind the peritoneum, will either take the course of ordinary lumbar and psoas abscesses, or, like the renal and peritoneal abscess of which I have just spoken, develop in the lumbar region before they can be felt through the abdominal walls. It may be said further, in this connection, that the peculiar pulse and facial expression of peritonitis are lacking in those inflammations which occur adjacent to, but outside, that membrane.

The peculiar factor which is usual to abscesses occurring anywhere near an intestine deserves more discussion than is usually bestowed upon it. It is usually ascribed to the passage of gas by exosmosis from the intestine. Here arises a question at once physiological and pathological: Do gases habitually pass through the intestinal walls in their normal state into the peritoneal cavity in order there to undergo absorption? If so, what effect would they have upon the animal economy when they are formed abnormally, as in intestinal catarrhs or obstructions?

Their effect upon purulent collections is the obvious one of causing decomposition, and, as the result of the decomposition, early gangrene and blood poisoning. This may be especially remarked in the cases of pericæcal abscess, where the symptoms of inflammation are quickly followed by the development of typhoid symptoms and destruction of tissue. Such patients are apt to pass rapidly into a state of delirium. They rarely manifest the chills which elsewhere denote the occurrence of serious suppurations, but grow weak and languid, with parched tongue, sordes on the teeth and mental wandering. In a case upon which I operated a few years since at the Grand Trunk Junction, the patient had been a few days ill with a severe inflammation of the right iliac fossa. Dr. Hoyt, who had him in charge, told me that aside from acute pain and high fever and local redness and swelling, he showed no alarming symptoms until suddenly, without the occurrence of chills, he fell into a typhoid state, with feeble pulse and wandering delirium. I found him in this condition. Over the spot of pain the skin was of a dark red hue and crepitated under the finger. I made a free incision and evacuated a quantity of stinking pus and after that the patient rapidly proceeded to recovery. In these cases the peritoneum is rarely involved as the inflammation occurs in the cellular tissue behind the bowel, but the severe pain, the attending constipation, and often the gastric irritability, simulate peritonitis. Should the surgeon wait with such patients until chills and fluctuation make manifest the abscess, he would err. The only safe method is to use the exploring needle as soon as the skin pits on pressure or typhoid symptoms occur, and then to cut early. I am not sure, indeed, whether I would hesitate to cut into the inflamed structures even before pus could be thus obtained if the symptoms became at all alarming. Free incisions in the pre-suppurative stage would relieve tension and act just as beneficially as in a whitlow.

Before closing this paper I must speak of those abscesses of the abdominal wall which discharge by ulceration through the wall of an adherent bowel. Ordinarily, if the discharge is free, the cavity will gradually close and heal. If, however, the previous ravages of the abscess have been extensive and the

orifice of discharge is small, they will tend to perforate the abdominal wall also and form fecal fistula. The surgeon has to be on his guard in these cases, for if he cuts such a swelling freely open and a fistula results, he invariably gets the credit of having cut the bowel. The symptoms denoting the evacuation of pus into the bowel are relief from tension and pain, diminution of the size of the tumor, diarrhoeal discharges, and sometimes the occurrence of tympanitic resonance in the previously only semi-resonant tumor.

When these symptoms take place the urgency of the case as regards operation has passed away. The pus discharges through the bowel, gas mounts upward into the abscess cavity, and eventually the cavity contracts and heals, or the integument will ulcerate through and we will have a fecal fistula. The former event may not infrequently take place. I once saw a young man, in consultation with Dr. Jas. A. Brown, of Detroit, who had had a localized inflammation near the navel. When I saw him the urgency of the symptoms had subsided, but there was a soft, red and œdematous spot in the abdominal wall, such as ordinarily denotes the presence of pus. The needle of a hypodermic syringe passed into it discovered a cavity filled only with gas, and bubbles of gas escaped afterwards through the minute orifice. The skin only covered the hollow, and yet the patient recovered without external discharge. Had we cut into it I am afraid that we might have had to regret a fecal fistula.

When the symptoms of abscess of the abdominal wall are followed by the sudden occurrence of a general peritonitis, indicating rupture into the peritoneal cavity, there can be, I conceive, only one rational procedure, namely, that which has been resorted to so successfully in rupture of ovarian tumors, viz., free incision into the cavity, its thorough cleansing with carbolated injections and subsequent free drainage. I do not believe that any other treatment whatever can save life under such conditions.

The same may be said of those abscesses which develop sometimes idiopathically in the peritoneal sac as the result of acute peritonitis. They should be opened freely and thoroughly drained, otherwise they will end either speedily in death or result in long and

numerous fistulæ which may take years in healing. Such a patient came once under my observation in the person of a young man of about twenty years, who lived in Brighton, and was under the charge of Dr. Brigham. He had been ill for many months with fistula and chronic inflammation of the bowels, which had followed an acute peritonitis. After death a post-mortem examination was held, which I was unluckily unable to attend. Dr. Brigham informed me, however, that the numerous fistulæ penetrated into the abdominal cavity, where the intestines were found matted together and much discolored from the effect, apparently, of an old inflammation.

The symptoms of suppuration, when a peritonitis takes the unusual course of suppurating, may be very obscure, as we may have neither chills, redness of the skin, œdema, nor fluctuation, but it may be remembered that in suspected cases an exploring needle may be inserted into the abdominal cavity without any great danger.

To sum up, therefore, I will report that the diagnosis of the location of abscesses in or around the abdomen may be quite difficult, that the chills which denote the occurrence of suppuration elsewhere are often absent altogether in even large abscesses of the abdomen, and, finally, that the treatment in all cases must be the same which we apply to collections of pus elsewhere, namely, free evacuation and drainage, under the methods of strict antiseptic surgery.

A Case of Uterine Cancer.

BY J. H. CARSTENS, M. D.

(Read before the Detroit Medical and Library Association.)

IN the January number of the *DETROIT LANCET*, I reported a case of uterine cancer, operated on by the method of cutting and scraping away the cancerous tissue, and then cauterizing with chloride of zinc, as recommended by Sims. The results in the case were remarkable, and for six months thereafter, when I last heard from the patient, no return of the disease had been noticed; no doubt, sooner or later, the disease will re-appear, but to relieve the woman for six months from the distressing symptoms is a great gain, and will give us hope that if taken earlier, in its incipency, every vestige of disease might be eradicated by that method of operating.

Mrs. K., aged 46, mother of four children, the youngest being 11 years, has always been a healthy woman, except that when 15 years old she had a severe attack of inflammation of bowels. Before the birth of her last child she fell, which resulted in malposition and caused a severe labor, turning and use of instruments. She has menstruated regularly, but profusely, since last confinement, more so during the last year. During this time, also, a discharge from the vagina has been noticed, which has lately become very ichorous; for three weeks before I first saw her, she had flowed continually. She had headache, backache, pain in region of uterus, anorexia, and was, in general, debilitated. Physical examination revealed a large indurated cervix uteri, with rupture anteriorly, granulations which bled on the slightest touch. This was a case, therefore, of cervical areolar hyperplasia and rupture, causing the erosion and granulation; remembering, however, that just these cases develop into cancer, I followed the advice of Ruge and Veit (Berlin), and removed with the scissors a small piece. This, placed under the microscope, showed excessive epithelial proliferation, putting beyond question any doubt of diagnosis—incipient epithelial cancer of cervix.

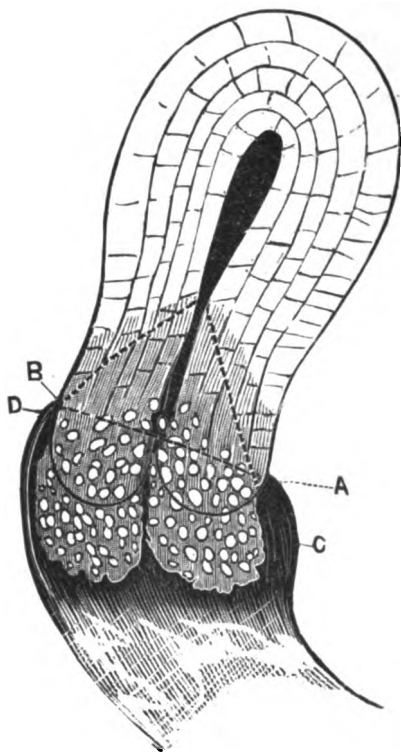
The woman first came under the observation of Dr. Webber, who, being indisposed at the time, requested me to take charge and treat her.

I decided to operate by removing all cancerous tissue, and then cauterize. This I proceeded to do, March 18, assisted by Drs. Webber and Wyman, and in the presence of the gynæcological section of students from the Detroit Medical College.

In order to remove enough, and I think we generally do not remove sufficient, I first amputated the entire cervix with an ecraseur, as seen in dotted lines, A-B, in accompanying drawing, then with a Simon's scoop, curette and scissors, removed a conical piece up to the internal os, dotted lines, C-D. Every particle which was hard or had a suspicious feel was removed, and I think that all the cancerous tissue was thoroughly extirpated. The hemorrhage, when severe, was checked with cotton dipped in persulphate of iron solution. When all the diseased tissue was removed, I packed the cavity full of cotton balls saturated in persulphate of iron and

pressed dry, and filled the vagina with cotton soaked in carbolic water. This tampon compressed the urethra, requiring the use of the catheter at least twice a day.

March 20th, I removed the tampon, exposing the raw surface, to which I applied cotton balls soaked in a saturated solution of chloride of zinc, and pressed as dry as possible; then I filled the vagina with cotton batting saturated with a solution of bicarbonate of soda. This application caused considerable pain, which had to be relieved with morphine. I put the woman on 2 grs. quinine every two hours. This caustic ap-



plication was removed on the 23d of March, when the wound and vagina were found to be covered with an eschar, caused by the zinc chloride, the urethra even being involved, causing severe pain when passing water. The patient gained rapidly, and I expected to have such quick recovery as in the preceding case, but I was doomed to disappointment, for suddenly on March 26 severe pain in bowels was complained of, and a severe peritonitis set in. This ran the usual course, considerable effusion taking place, but gradually the symptoms disappeared and the patient was on the high road to recovery, when pneumonia developed on the 19th day after the operation. This final attack brought the patient to the verge of the grave,

the emaciation being extreme; with anorexia and occasional vomiting, the symptoms certainly were unfavorable. The abdominal symptoms all disappeared during this time, the effusion diminished, urine and bowels moved freely and without pain. The lung trouble was gradually brought under control, and to-day the patient is apparently free from cancer of the uterus, no discharge, no hemorrhage, only still one tender spot in the left side, where probably still some circumscribed peritonitis exists. Her cough is still severe, and expectoration profuse, but I am in hopes that this will soon also be relieved; she is still very anæmic and weak. She is now taking iron and arsenic, the latter remedy being so highly lauded by Sims as essential to the after treatment of cancer.

P. S.—June 1. Patient entirely recovered and discharged. She is perfectly well, and seems to be free from cancer. She promised to report immediately if any suspicious symptoms developed.

Twenty-seven Anti-bilious Pills Swallowed by a Child of Two Years.

REPORTED BY EPSOM SALTS, M. D.

I WAS just sitting down to my dinner when in ran one of my neighbors, Mrs. M., exclaiming excitedly, "Oh, doctor, what shall I do; my little girl has just swallowed twenty-seven pills: sugar-coated pills; there is the box; there were twenty-seven pills in it."

The box had on it only the number of the R, and the medicine had been prescribed and put up in Detroit, so there was no information to be got from the box or its contents, and little from the mother.

"What kind of pills were they, Mrs. M., and are you certain that the child has swallowed them?"

"Oh, yes; I know it. I found her playing with this box that had pills in it that I took for headache; the doctor called them anti-bilious pills. There were at first thirty in the box, but I had taken three; one was a dose for me and made me very sick when I took it, and oh, I am sure they'll kill her. There were none to be found when she was playing with the box, and I asked her what she had done with them and she said 'down here,' patting her finger to her mouth."

The child as yet presented no unpleasant symptoms, thanks to the sugar-coating, which

fact, however, had doubtless led the child to thus dispose of the whole of them, she thinking they were very nice candies.

"Well," I replied, "Mrs. M., if it is as you say, no time is to be lost, and if you are happily mistaken, an emetic will not hurt the child; run as fast as you can for this medicine, (zinci sulph., gr. xv; divide in three powders. Give the child one of the powders in warm water as soon as you get them, and another in ten minutes if she has not vomited), and I will be over almost as soon as you get the medicine."

In fifteen minutes I was at the house, but found no child there and the mother just going out. I asked her if she had given the child one of the powders.

"Yes," she replied, "I just gave it, just a little while ago, but the child is up to Dr. —'s with B. and my sister; you see, just as I had given her the medicine, B. came in and asked what all the trouble was about, and I told him, and he says, 'Oh, you'll murder the child with your nasty vomit,' and so he picks her up and runs with her, and my sister after, up to Dr. —'s."

(Dr. — is a homœopath, living a few doors above, and B., a young man waiting on the sister, and, as an expectant brother-in-law, feeling that he has rights, duties and responsibilities in the domestic affairs of the family.)

"Very well," I replied; "then I can be of no further service," and left, the mother at the same time running after her child to Dr. —'s.

The remainder of the history must be recorded in the words of the mother. It was about an hour afterwards, I was sitting in my office, when in rushes Mrs. M., almost as excited as before, exclaiming, "there, doctor, look at that," handing me a paper.

"What is it, Mrs. M.; what have you in the paper!"

"Why, the pills; look at them. There's eighteen you can count not broken up, besides a lot of matter that smelled like medicine that she vomited up, and she is all right now, only a little weak and pale."

"Then the emetic operated promptly, I suppose!"

"Yes, and saved my baby. You see, I ran right up to Dr. —'s, and when I got in he was feeling and pressing all over the child's belly, and says he to me, 'you can be

perfectly easy about your child, Mrs. M., for she hasn't got any pills in her."

"But, doctor, I know that she has, for she told me that she had eaten them and you can smell the odor of medicine in her breath now."

"Oh," says he, "you are scared for nothing. I tell you the child hasn't swallowed any pills."

"But, doctor," says my sister, "we know very well that the child has taken them."

"Oh, indeed, who ought to know best, you or the doctor?"

"So I picked up my child and ran home with it to give it another of the vomiting powders, and as I was going out Mrs. Dr. — says to me, 'Mrs. M., if you feel uneasy about the child, give it a mustard emetic.' So as soon as I got home I got ready another powder, and just as I was going to give it, she began to vomit and here is what she brought up, except what was too soft to put in the paper, and you, doctor, have saved my child. But pretty soon B. comes back and I showed him what she had vomited and asked him what he thought of it, and if he believed that Dr. — could feel pills in a child's belly, and he says, 'Gosh! I'll run right up and tell him.' So, in about fifteen minutes who comes along but Dr. —, and says he, 'So you gave the child the emetic, Mrs. M., and it brought up the pills.' Yes, I said, and if it hadn't my child would have been dead. 'Well,' says he, 'you can just thank my wife for the suggestion of that emetic and saving your child.'"

Rudolph Virchow on the Nature and Causes of Disease.

(Abstract from Virchow's Archives.)

BY DR. HERMAN P. V. PETERSHAUSEN.

V.

THE proof that certain vegetable micro-organisms are constantly to be found in the body after being invaded by certain diseases, and the further proof that their immigration causes such a disease may be considered as sufficient to serve as an outline of the doctrine that these diseases depend upon such micro-organisms. Besides, one can admit that herewith there will be established to a certain degree a theory of contagion or infection.

We are very modest with relation to these things. The spirochæta Obermeieri is a well

defined plant, and its presence at a certain period in recurrens is doubtless. That is all we know, of course, only provisionally about this disease. But do we have, therefore, a theory of recurrens? I think we are still pretty far from it. I will not mention that we do not know the least about the manner in which the contagion is transplanted, or the location from whence it comes, but I must say that we do not know the least about the place where it develops its action in the body, and how it comes that through it a certain feverish disease arises. Thereto some cellular pathology is necessary. We will have only then a theory of recurrens when we know which living cells become attacked from the fungi or their infectious matter, and what changes take place by it in these cells.

Such considerations explain why not all the investigators on infectious diseases remain on the surface of things like those who hunt mainly for the discovery of new fungi. I have formerly already investigated the action of fungi in two directions. I explained that these organisms might either directly attack and destroy parts of the living body by their activity, or that they might produce a poison that threatens life. In the first case it seems to be possible that the fungi penetrate into the elementary parts of the body and begin to act there, or that they come only externally near those parts and impoverish them by way of infusion or attraction, or lastly, that they prevent substances necessary for nourishment and the support of vital functions from reaching their place of determination, but require these themselves. Careful investigations of such occurrences only would lead to a thorough knowledge that might be used as a proper theory of infectious diseases. This theory must be of necessity a cellular pathological one, for, if not, the infectious diseases must run their course without changing any living parts, which cannot be imagined. It does not alter anything if the changes are just of an anatomico-pathological character, for cellular pathology has not only to do with anatomical changes, but likewise with physiological ones. I have explained this so frequently that Mr. Klebs might have saved himself the trouble of causing the belief that cellular pathology was at an end if one could not see a change in the substance of a cell. Whereas I reply that a

true theory of infection has not yet begun if one binds himself to the proof of the presence of a fungus as cause of disease.

Let us take an example for instance. Small pox is certainly a grave infectious disease of an eminent contagiousity. It was a well known disease long since. Prophylactically there was made a great step in the investigation of its nature by the introduction of vaccination, a success met with in no second disease. Then micro organisms were discovered in the lymph of small pox pustules by Keber. Next, the same parasitical organisms were found in different organs of men being attacked from small pox. In the opinion of superficial thinkers the theory is now complete. But in fact, the investigation commences just now. Do we then really know what these organisms are acting in the body? One may say that they cause an irritation upon certain elementary parts of the skin. But by what action is this exercised? Mr. Weigert, a careful observer, says: "The probability is that the bacteria contain the infectious matter themselves." I can thus reserve only praise. When we consider the insignificance of bacteria colonies and the extension of the attacked skin, it is difficult to imagine that direct action of bacteria is causing mechanically an irritation. It seems to be more probable that an irritating substance is coming forth from the bacteria. Now, how comes it that though the action of such bacteria happens but once, there may be the susceptibility of the body to new bacteria, either arrested or greatly diminished? In reality we know nothing about this, and our acquaintance with the bacteria has not the least advanced our knowledge on this main question. Mr. Klebs, who makes it appear as if the knowledge of the fungi brings at once the greatest practical consequences, will please to explain of what use this knowledge was to us.

If we had a true theory of vaccination, and the being seized once of contagion, all the cry of the opponents of vaccination would be silenced. But we are with the bacteria in small pox, therapeutically and prophylactically, exactly in the same spot as before. Do we then know how the powerful fever is brought on that accompanies small pox? Do the bacteria cause it, and where? Or, is it some matter produced by them, or a secretion called forth by their irritation, or a dis-

integration caused by them producing the fever? Many questions, but no answer. Is this a theory? No, Mr. Klebs, the theory will come when somebody has made cellular pathological investigation on the contagion.

But, just in the case of small pox, there is of importance the question of predisposition. When a mother, not being attacked from small pox, gives birth to a child whose skin is covered by pustules—an observation which I can confirm—the ardent parasitologist will not be able to deny that there must be something in the structure of the maternal body that saves it from the influence of the fungi.

We know so little of the bacterium variolæ, vaccinæ, etc., that one cannot even say if the same bacterium calls forth the true variola, varicella, cow pox, or if they differ. I even think that no microscopist is able to explain why a certain bacterium is a variolous, varicellous, etc. We only recognize this in the body of a small pox patient by examining their specific products, and so it is, not only with small pox, but with the greater number of acute exanthematous diseases.

This is the reason why the diagnosis of diphtheritic local affections is of peculiar difficulty. I tried to generalize the question about the difference of diphtheritic diseases. I cannot enter into these difficult questions, the more so as I cannot solve the problems. But I will mention that I distinguish between dysentery, diphtheria of intestines and simple diphtheria of intestines; between diphtheria of scarlatina, small pox, etc., and simple diphtheritic angina, though I cannot give a botanical character to separate the different kinds of bacteria in diphtheria.

So may, then, the question arise, if there does not exist another infectious substance by the side of the fungi?

VI.

It seems, still, to me that a true theory of infection must solve the question, if the fungus acts deleteriously as such, or by means of a certain chemical substance either produced by it or changed under its influence. The relations between infectious disease and simple poisoning are closer than the parasitologists admit. I pointed out already, previously, that it is an error of Mr. Klebs' when he says that the conditions caused by intoxication will disappear or become stationary, after the introduction and spreading of the poison in the body has ceased. A great

number of metallic poisons become incorporated into the body and remain for a long period in the interior of the elements of tissues, causing disturbances in their vitality. Of course some of these disturbances get stationary, others show a progressive character. But is it not the same with many infections through fungi? How often do the conditions become stationary?

In relation to this, I point to chronic interstitial hepatitis that leads to cirrhosis, and was considered for a long period as a proper disease of inebriency. Afterwards, it was proven that it is, likewise, the sequence of syphilis and intermittents. We would, therefore, have to consider as its causes: 1, *Alcohol*, a product of fungi. 2, *A contagion* (virus syphiliticum), which is considered by Mr. Klebs as a mycotic one. 3, *A simple miasma* (malaria), that is likewise mycotic according to Mr. Klebs. Now two new causal categories of cirrhosis were discovered in my institution. G. Wegener produced exquisite granular atrophy of the liver in animals by feeding them with phosphorus, and M. Wolf obtained cirrhosis by repeated injections of liquids containing fungi.

This seems to me to be sufficient to explain not only the position of cellular pathology in regard to the fungi, but to give the fungi their proper place among "causes of disease."

A common chemical poison, a poison generated by the activity of fungi, a contagious virus considered as mycotic, a miasma and an artificial liquid containing fungi cause the same very characteristic and at last stationary change. This is brought on by irritation. All five causes act, therefore, as irritants upon the tissues, and it is with a few exceptions, not possible to draw conclusions from the kind of change to the especial cause.

At last, I wish to declare that for a certain number of infectious diseases I acknowledge the fungus theory as established, and I even admit that their number will still increase. Before his address at Cassel there was between Mr. Klebs and me only one difference, namely, whether a general uniform theory of infection in a mycotic sense is established now, already? I denied this, though I admitted that there are mycotic infectious diseases. Mr. Klebs considered himself personally insulted that I made my reserve, and admonished to caution. We know only in a very incomplete manner how living cells get

affected by the fungi. We know something about causes of disease, but deplorably little of the proper nature of disease.

Reports of Societies.

The Michigan State Board of Health.

Reported for the DETROIT LANCET.

THE regular quarterly meeting of this Board was held at their rooms in the State Capitol, at Lansing, on Tuesday, July 13, commencing at 9 o'clock A. M. The following members were present: Dr. R. C. Kedzie, President, of Lansing; Rev. Dr. D. C. Jacokes, of Pontiac; Dr. Henry F. Lyster, of Detroit; Dr. J. H. Kellogg, of Battle Creek, and Dr. Henry B. Baker, Secretary.

Dr. Lyster called the attention of the Board to syphilis—a disease to which but little attention was paid by sanitarians, but which causes much sickness and many deaths in this State. He was requested to prepare a paper on the subject and present it at the next meeting of the Board.

The resignation of Dr. H. O. Hitchcock, of Kalamazoo, as a member of the Board, and the appointment of Prof. E. A. Strong, of Grand Rapids, by the Governor, were announced and the following resolutions were adopted:

Resolved, That in the retirement of Dr. Hitchcock from membership in this Board, the Board loses one of its most efficient and distinguished members.

Resolved, That the individual members of the Board regret the personal separation thereby entailed, and extend to the retiring member their best wishes for his continued prosperity.

A letter from Dr. Hitchcock commended very highly his successor, Dr. Strong, as also did other members.

BOARD OF HEALTH IN DETROIT.

The Secretary presented a communication from F. G. Russell, City Attorney of Detroit, suggesting that the State Board address a letter to the Mayor and aldermen of that city, recommending the organization of a Board of Health, and the appointment of a Health Officer.

Dr. Lyster said there was no way of getting reliable statistics relative to sickness and mortality in Detroit. The record of interments is the only source of information, and is not reliable, as the reports to the City Clerk are voluntary, and there are many in-

terments (especially of Israelites) outside the City. The old Board of Health was not efficient, because unwieldy, but the "sanitary squad," of the police force, does some efficient work in enforcing the ordinances relative to garbage, etc. The City Police, however, oppose the appointment of a Health Officer, fearing it will interfere with the work of their "sanitary squad." It was suggested that perhaps the people of Detroit did not wish the real facts relative to sickness and death disclosed. Drs. Lyster and Baker were appointed to prepare a plan for a Board of Health in that city and endeavor to secure its adoption.

SICKNESS AND PAUPERISM.

A communication was presented from Hon. H. W. Lord, Secretary of the State Board of Corrections and Charities, relative to pauperism as a result of sickness. After some discussion relative to the amount of pauperism caused by sickness, and the extent of the field over which a study into the subject should reach, a committee was appointed to investigate the subject, to be known as "the committee on the relations of preventable sickness to taxation," with Dr. J. H. Kellogg as Chairman.

SANITARY SCIENCE EXAMINATIONS.

The remainder of the forenoon session was principally occupied with routine work and the perfecting of details for examining and marking the standing of candidates in the examinations in sanitary science inaugurated the following day, and which requires: "The replies on each set of topics shall be marked on a scale of 10, and an average standing of 70 per cent. on all topics shall be necessary in order to pass the applicant." One who successfully passes the examination receives a certificate that he is considered qualified to act as Health Officer of any township, city or village in Michigan.

A paper on "Unsanitary Conditions in our Public Schools," by G. E. Corbin, M. D., of St. Johns, was read. The paper consisted of details of overcrowding, bad ventilation and the sickness resulting therefrom, which came under his personal observation. The paper will be published in the report for 1880.

Two valuable papers by A. W. Nicholson, M. D., of Otisville, were presented. One was on "Ozone," and contains details of numerous experiments; and one on "Periodic Fevers," containing detailed records of cases

and co-incident meteorological conditions. The papers were accepted, with thanks, and ordered printed in the Annual Report for 1880.

SANITARY CONVENTIONS.

The Secretary reported that he had edited and prepared for publication the proceedings, etc., of the Sanitary Conventions held at Detroit and Grand Rapids, during the past winter, and the copy was in the hands of the printers.

ADULTERATIONS OF FOODS.

Dr. Kedzie said he had received a request from gentlemen in Chicago to enter upon an investigation of adulterations of foods, and had replied that the Board had no funds. He stated that the adulteration of sugar with glucose was increasing rapidly, and was being done more skillfully. That adulteration with pure glucose did not endanger health, but the sugar was not so sweet. The manufactured glucose, however, was unhealthful to take into the stomach, because of poisonous substances which are always associated with it. Dr. Lyster said a prominent candy dealer had informed him that all candies, excepting rock candies, were composed in part of glucose. Dr. Kedzie said nearly all syrups were made from glucose.

The Board performed a large amount of routine work—such as auditing of bills—and adjourned until October 12, 1880.

Detroit Academy of Medicine.

WRITTEN COMMUNICATIONS.

Dr. Bradley reported a case of melanotic sarcoma of right eye. Operation.

DISCUSSION.

Dr. Noyes—It is some time ago, but still I remember the case distinctly. When I was called in consultation we both considered the tumor malignant, and it was on that account the eye was removed. The success in these cases is much more sure if extirpation is made before the tumor has broken through the tunics of the eye.

Dr. Connor—I remember seeing a case in the Charity Hospital while I was a student, and I afterwards made a post-mortem examination of the case. The patient's body was studded over with any number of melanotic tumors. The disease began in the right eye with great pain, but the eye was never removed, and after a while tumors began to develop themselves over the body, all of

them showing the characteristic color. The patient lived a short time and died.

PATHOLOGICAL SPECIMENS, INSTRUMENTS, ETC.

Dr. Carstens—I have here a very peculiar tumor taken from a girl 15 years of age. She was well developed and apparently in good health. This growth occupied a portion of the mons veneris and hung down in front of the vagina, and looked like a penis. Some of the people who saw it thought the girl was a hermaphrodite. The tumor resembled, to a certain extent, elephantiasis, which is common to these parts. I removed it readily with a knife and brought the edges of the skin together, and left no scar. The tumor is, as you see, fibro-cystic in character, and under the microscope is seen to contain large quantities of epithelial elements. It is of interest, owing to its peculiar shape and the position it occupied.

Dr. Connor exhibited to the Society Rissley's optometer, showing the facility with which it enabled one to measure and record the field of vision of either eye, to detect and accurately measure any degree of astigmatism, of hypermetropia, of myopia, or of presbyopia. While other means enabled the oculist to reach the same results, this apparatus certainly enabled him to make more accurate observations with a saving of time and an increase of comfort to both his patient and himself. Beyond question it is the most perfect apparatus of its kind now before the profession.

Dr. Noyes—The great value of the instrument is seen at a glance. It records exactly the field of vision, the amount of defect in the eyes and many other points that are essential to a correct examination. The instrument is not new, but has been so expensive that it did not come into general use. I am glad that Dr. Connor has procured one, and I am sure he will find it a great help in diagnosis. I think that he will have no reason to regret having invested in so valuable and expensive an instrument.

VERBAL COMMUNICATIONS.

Dr. Noyes.—I will report a case of a little child, six years old, who received a stab in the right eye with a large knife in the hands of a playmate. The cut was fully a quarter of an inch long in the sclera, and involving the ciliary region of the eye. A week after the accident the little patient was brought to me. No bandage having been applied by the

physician who had had the case in charge, the wound was found to be gaping open with a portion of the iris and vitreous protruding through it. I removed the piece of iris which was protruding from the wound and applied a compress bandage; that was about all I did. I had the child under observation only a week, as the parents were not able to stay longer in the city. The inflammation subsided to a great extent, and no symptoms of irritation have appeared in the fellow eye. I need hardly say that all vision was lost in the injured eye. I gave the mother directions to continue the bandage, and that if any weakness or tenderness appeared in the well eye to return immediately to me, as it might become necessary in that case to enucleate the injured eye. I have not heard from them since and I am to suppose that no trouble has arisen. For cosmetic reasons, and for the support which the eye gives the lids, it is always best to retain the injured organ in such a case, if it is possible to do so without incurring too great a risk. It need scarcely be said here that in such an accident as this the first thing, almost, a physician should do would be to close the lids and apply a compress bandage.

Dr. Carrier—Does the eye retain its shape and position in those cases where the optic nerve has been divided?

Dr. Noyes—Yes. The eye retains nearly its shape and size, and is quite successful in preventing the sympathetic difficulties for which eyes have been hitherto removed. The operation is becoming quite popular.

Dr. Bradley—Would not the operation be more apt to be followed by suppuration and inflammation of the cellular tissues posterior to the eye? Would not the hemorrhage be great and hard to suppress in some cases?

Dr. Noyes—Thus far the operation has been quite successful. Of course there are cases where suppuration and hemorrhage might occur, which would make the case difficult to handle.

Dr. McGraw—I have a class of students at St. Mary's Hospital, in the wards. Among other things I have them each get a thermometer and take the temperature of the surgical patients. After examining several patients it was found that there was a difference of several degrees in the thermometers used, some registering more and some less. We found that they all registered correctly

the normal temperature, but when using them on the same patient at the same time, in the same position, it was found that there was a disparity of several degrees, no two registering alike. If this is the case with all thermometers used by medical men throughout the country, I can hardly see how we can place any reliance on the statements we see in medical journals where reports of cases of high temperatures are given. We often see reports of cases where the temperature ranges as high as 106° or 107° F. that recover under treatment. Probably these physicians were using high temperature thermometers, while other physicians lose patients with comparatively low degrees of fever. These differences are, no doubt, due to incorrect registration of the thermometers used. It is something that ought to be looked into.

The Detroit Lancet.

LEARTUS CONNOR, A. M., M. D., EDITOR.

Bogus Medical Diploma Trade.

PHILADELPHIA for years has been the headquarters of the bogus medical diploma traffic. The city and State authorities acknowledged their inability to suppress it. The medical profession and the medical colleges, whose reputations suffered so much from it, either could not or did not destroy it. Thus the matter stood when the city editor of a secular paper, the *Record*, took the matter in hand. Himself and friends bought diplomas to the number of forty-two. He has the names of eleven others to whom the diplomas were offered, and the names of eleven agents acting for the leader in the traffic—one Buchanan. These diplomas were issued by five distinctly chartered medical colleges.

The *Record* man himself caught Buchanan. By negotiation he obtained, by paying \$75, three medical diplomas—one from the Eclectic Medical College of Pennsylvania, one from the American University of Philadelphia, and another from the National Eclectic Medical Association.

All these diplomas certified that the newspaper man, under the name of Dr. John Fanning, of Tippecanoe City, Ohio, studied medicine three years, had attended two courses of lectures and passed a satisfactory

examination in each of the seven branches of medicine. Under the name of Dr. Geo. A. Dawson, of Chester Court-House, S. C., and for \$150, he obtained five degrees, two of doctor of medicine, one of doctor of divinity, one of doctor of law and one of doctor of civil law. The final letter of this transaction passed through the mail, Dr. Buchanan receipting for it. He also deposited the diplomas in the mail to be delivered to the South Carolina doctor. He was now arrested and half a ton of bogus diplomas captured, with a mass of correspondence showing the sale of about 3,000 sheep skins.

Buchanan was arrested on a charge of using the United States mail in connection with the business. Chas. S. Polk and John J. Leggins, members of the faculty, were also arrested, while six other members avoided the police.

From these facts we have grounds for hoping that the scandalous sale of diplomas has been suppressed at least in Philadelphia. Some enterprising newspaper man could collect a series of remarkable facts by setting, in a slightly modified form, the same trap before described for the officers of some medical colleges supposed to be respectable. At any rate it would be interesting to know if diplomas could or could not be obtained from so-called reputable colleges on terms other than those which they publicly profess to require.

Fraternization with Homœopaths as Viewed by the Irish College of Surgeons.

IN Dublin efforts, at various times, have been made by prominent practitioners to combine the advantages of consulting with irregular and with those of good standing in the regular profession. To meet these efforts the Irish College of Surgeons in 1861 passed a very strong law against said practice—the violation of which subjected a fellow or licentiate to formal censure or even expulsion from the college.

Recently, the matter was brought up in another shape and met by the adoption of the following (*Med. Press and Circular*, June 30, 1880): Resolved, That it be an ordinance of the council that no fellow or licentiate of the college shall seek for business through the medium of advertisements or any other disreputable method, or shall consult with advise, direct or assist, or have any professional communication with any person who

professes to cure disease by the deception called homœopathy, or by the practice called mesmerism or by any other form of quackery; or who follows any system of practice considered derogatory, or dishonorable to physicians and surgeons. And furthermore resolved, That in the opinion of this council it is inconsistent with professional propriety and derogatory to the reputation, honor and dignity of the college to engage in the practice of homœopathy or mesmerism, or any of the forms of quackery as hereinbefore set forth. In its remarks upon these resolutions the *Medical Press and Circular* says: "The Irish College of Surgeons has a perfect right to declare that its fellows and licentiates shall honorably fulfill their duty to their patients according to their lights." "That duty cannot be honorably fulfilled if the physicians or surgeons descend to a compromise with error, and we will add with fraud in order to earn a consultation fee, or satisfy the vagaries of the patient; and it is against the dishonor involved in such a surrender of principle that the college has declared its ban." It appears from these facts that the profession of the old world needs laws to compel its members to keep proper professional relations.

Hence we may infer that there as well as here are to be found members of the profession who are to be retained in a respectable walk only by wholesome fear of the "judgment to come."

Accurate Verification of Thermometers.

A FEW months since this topic was the subject for discussion by a scientific medical society. It was conclusively shown that different thermometers, even the best to be obtained from the shops, made a different record when exposed to the same heat. Thus, half a dozen different instruments applied in the same manner to the same person recorded the temperature half a dozen different amounts. Clearly the records taken by such instruments could have no scientific value. Since that time provision has been made for the accurate testing of thermometers, so that each person may know the error of his own instrument. Because of its importance we publish full details respecting this provision:

This bureau has been established by the corporation of Yale College, at the recom-

mendation of the Board of Managers of the Winchester Observatory, in order to afford desired facilities for the adequate verification of thermometers.

Thermometers will be received by the observatory for the purpose of comparison with the observatory standards, and certificates of comparison, signed by the astronomer in charge will be issued with thermometers so compared. These certificates will contain a statement of the corrections to be applied at intervals of five or ten degrees of the thermometer scale to cause it to have the same reading as the observatory standards. In general these corrections will be expressed in tenths of a degree Fahrenheit, or in twentieths of a degree Centigrade.

Thermometers sent for verification must have a name and number engraved upon them; and the thermometers which are not graduated on the glass stem must be of sufficiently good workmanship to satisfy the observer in charge that the scale will not suddenly change with reference to the glass stem of the thermometer tube, with ordinarily careful usage.

The Board of Managers have established the following scale of charges for this service, which includes the hall mark and the certificate:

| | |
|---|--------|
| Standard Meteorological Thermometers.. | \$1 00 |
| Ordinary Meteorological Thermometers .. | 50 |
| Ordinary Maximum Thermometers..... | 75 |
| Ordinary Minimum Thermometers..... | 75 |
| Clinical Thermometers..... | 50 |

There will be a deduction of one-fifth of the above charges where more than eight thermometers of one kind are received at the same time. In the case of clinical thermometers the charge will be four dollars per dozen when not less than two dozen are sent at the same time.

For other thermometers than the above the charges for verification will be furnished on application.

The letter of advice accompanying thermometers sent for verification should contain the maker's name, the number of each thermometer, and full directions for reshipment.

All proper precautions are taken by the Board of Managers to guard against loss or injury; but as it is manifestly inexpedient that a university corporation should be responsible for property in its care for such a purpose, it is to be understood that all risks

are assumed by the person sending the thermometers.

LEONARD WALDO,

Astronomer in Charge.

Approved and ordered to be published by the Board of Managers of the Winchester Observatory.

C. S. LYMAN, President.

H. A. NEWTON, Secretary.

New Haven, Conn., June 1, 1880.

The observatory desires to encourage the general verification of thermometers on the part of the members of the medical profession, meteorological observers, and all those persons who have occasion to note temperature to less than one degree Fahrenheit. The inaccuracies of the thermometers in use by the majority of such persons are considerably greater than is commonly supposed.

It will be seen that the observatory places every facility at the disposition of observers and thermometer makers for the ready verification of thermometers, and there is no good reason why a purchaser should not have an accurate knowledge of the errors of his instrument should he so desire.

The observatory will make arrangements with hospitals and other institutions using a number of thermometers for the systematic examination, at stated intervals, of all thermometers in their use. Such an arrangement precludes errors arising from the use of newly made instruments which have been verified, but whose scales have not yet attained an approximately permanent position.

For the present the comparisons of clinical and meteorological thermometers will be made with a water bath, in which the water is brought to a given temperature and mechanically agitated before the comparison is made. The standard to which the primary and secondary mercurial standards will be referred is the air thermometer.

Ordinary thermometers are returned within three days from the time of their reception, if the observatory charges for verification are remitted with the thermometers.

In case they are not so remitted, they are payable upon notification by the observatory that the thermometers are ready to be returned.

It is to be hoped that all, either directly or through their instrument makers, will at once see to the verification of their instruments, so that we may hereafter be better able to

understand and compare clinical reports involving changes in temperature.

Memoranda.

Kolpœpetasis is a term devised by Dr. Bozeman to designate the operation of stretching the vagina.

Samuel Messenger Bradley, F. R. C. S., surgeon to the Manchester Royal Infirmary, died, May 26, æt. 39. He was a brilliant surgeon and a cultured gentleman.

Dr. B. F. Lautenbach, died, July 24, of phthisis pulmonalis. He was well known as an original worker in experimental physiology.

The *Leader*, a secular paper of Grand Rapids, Mich., on June 28th contained fifty doctor's advertisements, ranging from Dr. Aiken to clairvoyants, regulars, homœopaths, eclectics and all other kinds.

A British writer says: "I receive scores of pamphlets from American physicians on special subjects, which I am almost ashamed to see on my table—so grossly offensive to respectable scholars are they. I imagine this pamphleteering system is but an advertising dodge. I think it ought to be snuffed out. I am always pleased to meet with a brochure containing something new and instructive, but I detest all strutting in stolen clothes."

Dr. Levinstein (*Berlin. Klin. Wöch.*) states that he has had under treatment for morphinism eighty-two men and twenty-eight women. Of these, thirty-two were medical men, eight medical men's wives, seven persons connected with professional work or residing in practitioners' houses, eight apothecaries and one apothecary's wife. Of the thirty-two medical men, twenty-eight returned to the habit and so did all the apothecaries.

Dr. T. G. Thomas (Trans. Amer. Gynecological Society, 1879,) says that "In medicine there is a body which has lived by recruiting new members in succeeding ages, ever since our art was founded by the wise old man of Cos, and which lives with undiminished desires and ambition in our times. The peculiar function of this body is to decry every advance and to depreciate every effort at progress; and under the fraudulent guise of conservatism to smother every attempt at improvement by abuse and misrepresentation. Had its members met in the

past with the success for which they strove, the name of Jenner would to-day have been a by-word and reproach; no monumental pile would have commemorated the existence of the illustrious McDowell, and the women of the nineteenth century would have bowed in silent suffering before the mandate, "In sorrow shalt thou bring forth children."

Judge Hines, of Kentucky, has decided that, according to the laws of his State, abortion produced prior to quickening, and done with consent of the mother, is not a punishable offence. Wonder if abortionists will now gravitate to Kentucky in order to pursue their nefarious trade without dread of the law? The Judge recommends that the Kentucky Legislature pass such a statute as shall correct the present defect in the law. It may be a good thing to have the matter placed upon the statute book, but it seems of little practical utility in those states where it now exists. While abortions are frequent the conviction of abortionists is almost unheard of.

"Bicker claims that cleanliness is sufficient to cure purulent inflammation of the conjunctiva, and further affirms that since he has made use of it alone he has ceased losing eyes. He boldly confesses that he fears that he and his remedies did the damage." Dr. Seely, after quoting the above, says "that for six years he has scarcely used astringents or caustics in conjunctival affections of any sort, and that he can truthfully affirm that the only satisfaction he has had in treating such troubles dates from that period. *Purulency does not demand astringents and caustics.*"

In his annual presidential address to the American Gynecological Society, Dr. T. G. Thomas remarks "that the present age accomplishes the obliteration of personal hostilities and the exchange of distrust for confidence and friendship by reunions such as that in which we now take part. Interchange of thought by writing and by printing is cold, unemotional and bereft of the warming influences of direct association. Personal contact, the magnetism emanating from the friendly glance and the warm shake of the hand, can alone wipe out the petty jealousies and animosities which would otherwise creep into the frail, imperfect mind of man."

Simpson said truly that in natural labor 1 in 26 women die in 24 hours; in natural la-

bor 1 in 6 women die in 36 hours; in natural labor 1 in 6 children die in 24 hours; in natural labor 1 in 2 children die in 36 hours; 1 in 12 women die in from 12 to 24 hours; 1 in 5 women die in from 24 to 36 hours. Dr. Harper in 1859 said that in unassisted labor 1 mother in 22 dies; in unassisted labor 1 child in 5 dies; in assisted labor 1 mother in 56 dies; in assisted labor 1 child in 8½ dies. Taylor says that the average rate of application of the forceps should be about 1 in every 30 cases.

Editor's Book Table.

The Books Noticed in these Pages are for Sale by E. B. SMITH & CO., Detroit, Mich.

American Gynecological Society's Transactions for 1879.*

In addition to its proper contents, this volume contains an index to the gynecological and obstetric literature of all countries for 1878. As this was prepared by the aid of Dr. J. S. Billings, U. S. A., in charge of the National Medical Library at Washington, all will understand its reliability. This index alone is to every medical scholar worth the price of the entire volume.

The volume contains in all twenty-four papers, discussing a wide range of gynecological and obstetrical subjects, as will be seen by the following enumeration: Hints relative to Intra-uterine Medication; Intra-uterine Medication by Iodized Phenol; Treatment of Puerperal Septicæmia by Intra-uterine Injections; Cases of Sporadic Septicæmia in Gynecological Practice; A Contribution to the Pathology of Cicatrices of Pregnancy; Prolapse of the Ovaries; Case of Removal of both Ovaries for Dysmenorrhœa; Kolpocystotomy by Galvano-cautery; Measurements of the Uterine Cavity in Child-bed; Early application of the Forceps in the First Stage of Natural Labor; Clinical notes on the Elongations of the Cervix Uteri; Mismanaged Labor the Cause of much of the Gynecological Practice of the present day; A Case of Extra Uterine Pregnancy with successful application of Electricity. The Relations of Symptoms to Versions and Flexions of the Uterus; Chronic Inversion of the Uterus; The Justo-Minor Pelvis with Presentation of a Specimen; Kolpæpetasis

*TRANSACTIONS of the American Gynecological Society for 1879. Cloth; pp. 506. 1880. Boston: Houghton, Mifflin & Co.

versus Partial Kolpoplekisis; New Method of Performing Decapitation; Atresia of the Vagina Congenital or Accidental, in the Pregnant or Non-pregnant Female; Premature Senile Obliteration of the Uterine Cervical Canal; In Memoriam of M. B. Wright.

In his address upon the "Relations of the Gynæcology of the Future to Surgery," Dr. Thomas claims that the surgery of obstetrics and gynæcology stands upon tenable, reasonable middle ground. "For the want of relief, which surgery alone can offer, many women in our enlightened times leave the lying-in chamber with the certain prospect of having to pass lives of suffering, who might have come forth well; many are for years submitted to annoying treatment for displacements, the cause of which surgery could immediately remove; and many more are lengthily exposed to a variety of medical and minor surgical procedures for inflammatory ulcerations and kindred disorders, who could be discharged cured within a month. I assume the position that an enlightened conservative surgery is the pivot around which is to revolve the gynæcology of the future; that he who is incapable of meeting the demand for this will in the future be by that fact incapacitated from rising to the required level, and that a gynæcologist of the future without surgical attainments will be as impossible as an ophthalmologist without them is to-day." * * * "When it shall become the duty of the obstetrician, as it surely soon will do under the influence of advancing knowledge, before relinquishing the care of the recently delivered woman, to inform himself thoroughly as to the existence of laceration of the cervix and perineum; when the false and vicious doctrine of underrating and ignoring these grave accidents is silenced forever, and when a neglect of their early repair by surgical resort shall be regarded as a flagrant obstetrical dereliction, the number of women affected by pelvic disorders will become suddenly and wonderfully diminished." * * * "So, too, the time is at hand for the complete obliteration of a prevailing idea in the public mind that the functions of the obstetrician ordinarily consists in watching by the parturient couch, receiving the coming child and creating harmony and good feeling by well-turned compliments and blandness of manner. This popular idea has caused and causes now many a tender husband, who, were he about

to select a coachman, would carefully inquire as to his capacity for his important trust, to confide his wife at the most delicate period of her existence to the hands of one notoriously incompetent. These are the practitioners who, day after day, year after year, send forth women with lacerated cervices and ununited perineums to furnish the gynæcologist in the future cases of uterine engorgement, leucorrhœa, prolapsus and other displacements, cystitis and a long list of pathological states, which will cling to the sufferers for life, sapping their usefulness and destroying the happiness of their households."

We have not space for further quotations at this time, but in another part of the *LANCET* we shall present a condensed abstract of the views advanced in the various papers. The style of issue is the same as that of last year—indeed, its substantial elegance scarcely admits of a change for the better. There are no American medical societies that present an annual record more creditable to American medicine and surgery than this society.

Coomer on Naso-Pharyngeal Catarrh.*

Troubles of the naso-pharynx are extremely common everywhere, especially in the temperate zone. Their liability to recur, their usually slight inconvenience and the trouble attending their proper treatment has deterred both physicians and patients from giving them that attention which they may fairly claim. The work before us is an effort to teach general practitioners how they may recognize and treat the various diseases peculiar to this part of the body. A brief chapter on the anatomy and physiology of the nose introduces us to the methods of examining the pharynx, to an account of local medication, of climate, of catarrh in general, of acute sporadic catarrh, of sporadic catarrh, of chronic moist catarrh, of chronic dry catarrh, of the causes of catarrh, of infusional catarrh, of syphilitic pharyngitis and rhinitis, and of catarrhal and purulent inflammations of the middle ear. The whole is completed by an index. The text is illustrated by a considerable number of cases. As a whole the work may serve a useful purpose in supplying the wants of those who can not or will not purchase and read the more extended works on this subject.

*NASO-PHARYNGEAL CATARRH. By Martin F. Coomer, M. D. Cloth: pages 165. 1880. Louisville, Ky.: Bradley & Gilbert.

Savage's Plates of Female Pelvic Organs.*

This work is an exact reproduction on stone of the original work, the coloring only being omitted. It contains thirty-two plates and twenty-two wood engravings, with special illustrations of the operations on vesicovaginal fistula, ovariectomy and perineal operations. These plates are well known to every student of the female pelvic organs. But their considerable expense prevented the general practitioners from availing themselves of their aid. The work before us will place them within the reach of all. That the publishers should be able to so perfectly reproduce them at a nominal price is to us a perfect marvel, and the marvel grows each time we examine the plates. We shall be surprised if this volume does not add thousands of subscribers to this admirable library.

Report of Massachusetts State Board of Health.†

With this report closes the life of the best State Board of Health in this country. The work of the Board is supposed to be transferred to the new State Board of Health, Lunacy and Charity. Almost all of this volume is occupied by a general index of this and all former reports of the Board. Altogether these volumes constitute a record of sanitary activity creditable to all concerned in its production. We regret the abolishment of the Board, as we greatly fear that it will seriously retard the progress of sanitary science.

Transactions of Indiana State Medical Society, 1880.‡

The elegant manner in which this volume is issued does credit to both the taste and ability of Indiana's physicians. From this alone we should expect that it contained something worth reading, nor does it disappoint us as we open its pages. Its twenty-four separate papers extend into almost every

*THE SURGERY, Surgical Pathology and Surgical Anatomy of the Female Pelvic Organs, in a series of plates taken from nature, with commentaries, notes and cases. By Henry Savage, M. D., London. Third edition, revised and greatly extended. Sixth volume of Wood's Library of Standard Medical Authors for 1880. New York: Wm. Wood & Co.

†ELEVENTH REPORT of the State Board of Health of Massachusetts, for six months ending June 30th, 1879. Paper; pages 184. Boston, Mass.: Rand, Avery & Co., printers.

‡TRANSACTIONS of the Indiana State Medical Society, 1880. Cloth: Pages 361. Indianapolis, Ind.: Carlton & Hollenbeck.

field of medical science. In character these papers are largely practical. Many report well observed cases. State medicine, medical legislation and the rights of women doctors all are duly considered. Following the papers is a record of the dead during the past year. The minutes of the meetings are well kept. Hence, while the volume contains nothing new, it records the cerebral activities of a goodly number of honored medical workers, and reflects great credit upon all concerned.

Keinigke on Homœopathic Drugs.*

We were tempted to pass this book by with a simple mention of its name, for whatever criticism we might make would be accredited to bigotry. In general it is composed of a mass of assertions without any rational proof of the same. We have read it carefully in the hope of finding some rational evidence for the assumptions made, but all in vain. How any mind with faculties of reason and judgment should be able to make such a book passes our comprehension. It is an illustration of the end of those who trust in assumed principles to interpret their facts rather than in accurately observed facts to make basis of their principles.

*PATHOGENETIC OUTLINES OF HOMŒOPATHIC DRUGS. By Dr. Med. Carl Keinigke. Translated from the German by Emil Tietze, M. D. Cloth; pages 576. 1880. New York: Boericke & Tafel.

Abstracts from Exchanges.

Prepared by Judson Bradley, M. D., Albert B. Lyons, M. D. and E. A. Chapoton, M. D.

Anatomy.

CONNECTION BETWEEN THE ENDO- AND PERI-LYMPHATIC CAVITIES OF THE LABYRINTH AND EXTRA-LABYRINTHINE INTRACRANIAL CAVITIES.—Weber Liel (Virchow's Archives—*Chicago Med. Jour.*) by the method of injection and that of aspiration has demonstrated that the aquæductus vestibuli is an endo-lymphatic passage in direct and free communication with a sac lying beneath the dura mater, on the posterior aspect of the petrous bone, and that the aquæductus cochleæ is a peri-lymphatic passage in free communication with the arachnoid cavity. The sac on the posterior aspect of the petrous bone, saccus, intra-duralis or endo-lymphaticus is of connective tissue and enclosed in the tissue of the dura mater. It is from

twelve to eighteen mm. long, and five to nine mm. broad in its normal condition, but is much diminished by pathological changes in the tissues of the dura mater. In sixty preparations it was found in every one. On opening it the interior was lined with flat epithelium, but the question of whether it is in reality a serous sac remains unsettled. From this sac a membranous tube leads directly to the vestibule. An aspirator was connected with the superior semi-circular canal, and the saccus intra-duralis filled with "Beale's blue." Now by exerting suction with the aspirator it was found that the sacculus of the labyrinth, all the membranous canals and the ductus cochlearis were filled with the coloring matter. To determine the connection of the peri-lymphatic cavities of labyrinth, two methods were used, injection into the arachnoid cavity and aspiration from that cavity. By the former method the injected fluid entered the scala tympani of the cochlea, and also exuded through the perforated membrane of the fenestra rotunda; but as some of the fluid escaped between the dura and pia mater, it was uncertain whether it had entered the cochlea from the arachnoid cavity, and aspiration was then used as in previous experiments. The whole anterior part of the preparation was immersed in the coloring matter, and suction on the opened semi-circular canal exerted with the result of depositing the coloring matter throughout the peri-lymphatic spaces of the labyrinth, but without coloring the porus acousticus internus, thus proving that the connection could not be that canal. These experiments show that the aquæductus vestibuli is a passage communicating and retaining the equilibrium between the endolymphatic cavities of the labyrinth and a sac situated within the dura mater, while the aquæductus cochleæ is a passage communicating and retaining the equilibrium between the peri-lymphatic cavities of the labyrinth and the sub-arachnoid cavity. The peculiar feeling of pressure experienced with many affections of the ear he would explain by assuming that the labyrinthine fluids are forced by pressure through these passages into the cranial cavity and thus exert pressure upon the brain. The aural symptoms accompanying some brain diseases he explains in the opposite way, these passages allowing the fluid to be forced from the arachnoid cavity into the labyrinth.

SOME ANATOMICAL PRINCIPLES—LAW OF DEFINITE NERVE SUPPLY.—A writer in the *New York Medical Journal* states this law as follows: The same nerve trunk which gives a branch to any particular muscle gives another branch to the skin over the insertion of that muscle, and another to the interior of the joint moved by that muscle. There is another law of the definite distribution of arteries, according to which the hyoid bone must get a branch from both the lingual and the superior laryngeal, because it is structurally associated with both parts which these trunks supply—the larynx and the tongue. The ascending palatine is always to the student a wandering and unnecessary off-shoot from the facial, which he nails down in his memory by brute force with the other branches from the internal maxillary and the ascending pharyngeal to the soft palate. He never stops to think that the soft palate is concerned in three different functions—respiration, deglutition and mastication—and that if this law of definite distribution hold, it must have a branch from each of the arteries which supply the parts engaged in these functions, viz., the facial to the lips and cheeks, the internal maxillary to the jaws, and the ascending pharyngeal to the pharynx. How many students have ever thought of remembering the branches of the subclavian by the fact that it is the artery of respiration, and, apart from the arm, supplies only the parts directly or indirectly concerned in that process, the vertebral going to the spinal cord at the origin of the respiratory nerves; the internal mammary supplying the muscles and cartilages of the ribs; the superior intercostal distributed to the most important of all the ribs in this function; and the thyroid axis to the trachea and the muscles of the neck and back—all accessory to the same process.

Physiology.

OPTIC AREA OF THE CEREBRAL CORTEX—ITS PHYSIOLOGY.—Prof. Monk (*Alienist and Neurologist*, July, 1880), by experiments in 1878, showed that the situation and extent of the optic area covered the whole posterior lobe, including the side of the gyrus medialis, which lies next the falx. After extirpation of several of these portions in the animal, its recollection of previous impressions was lost. When the whole portion was extirpated, the animal became in addition retina

blind. Recent experiments were undertaken to demonstrate the connection of each hemisphere with both retinae. One optic area was totally extirpated, the whole posterior portion of the hemisphere, the cortex of the gyrus medialis looking towards the falx being included. Seven dogs, in whom the cortex was cut away to the depth of 3 mm. over the area named, were kept alive for thirteen weeks. In all of them it was discovered that the extreme outer portion of the retina does not belong to the optic area of the opposite side, and that just as much of the left retina belongs to the optic area of the left side as there is of the right retina which is not supplied from this area. Each retina, therefore, is chiefly connected with the optic area of the opposite side, and only to a small extent in its extreme outer portion with the optic area of the same side. Thus it appears that, systematically conducted, partial extirpations of the optic area have proved that the extreme outer portion of each retina is connected with the extreme outer portion of the optic area of the same side. The much larger remaining portion of the retina belongs to the much larger remaining portion of the opposite optic area. The retina may be imagined to be projected upon the optic area in such a manner that the lateral border of that portion of retina supplied from the opposite side corresponds to the lateral border of that portion of the optic area that supplies the inner border of the retina to the median border of the optic area, the superior border of the retina to the superior border of the optic area, and the inferior border of the retina to the posterior border of the optic area.

Action of Medicine.

ACTION OF VARIOUS DIURETICS.—Daurel (*Bull. Gen. de Therap—Med. Times*) gives the results of his experiments as follows: (1) Nitrate of potassium—uncertain as to the quantity of liquid—augments the solid materials of the urine to a notable degree. The most active doses are a drachm to a drachm and a half. (2) Chlorate of potassium, less active with respect to the augmentation of solids, increases the fluids of the urine to a greater degree. (3) Acetate of potassium is uncertain as to the quantity of both solids and fluids. (4) Iodide of potassium, far from being a diuretic even seems to diminish the quantity of urine. (5) Salicylate of

sodium—uncertain as to the quantity of liquids—increases the solid constituents of the urine. (6) Of three vegetable substances experimented upon, squill, colchicum and digitalis, the latter alone is a real diuretic. It augments at the same time the quantity of both solids and fluids. He thinks that no diuretic acts during a febrile state.

QUINIA AND CINCHONIDIA—THEIR PHYSIOLOGICAL ACTION.—Dr. David Cerna (*Med. Times*, July 3, 1880), from original experiments, concludes: (1) Quinia, in minute doses, increases reflex action by stimulating the sensory nerves. In larger doses the reflex action is depressed by stimulation of Setschenow's centre. (2) Quinia causes at first an increase in the number of heart beats, due to an early paralyzant action on the peripheral inhibitory nerves. The later sedation of the pulse is owing to its influence on the cardiac muscle. (3) The lowering of arterial pressure is due to the action of quinia upon the heart itself. (4) Cinchonidia depresses the reflex activity by influencing, like quinia, Setschenow's centre. (5) Cinchonidia lowers both the pulse and blood pressure, the causes probably being similar to those by which quinia produces its action.

Practical Medicine.

FEVER—ITS ORIGIN.—Geo. L. Walton (*Boston Medical Journal*, June 10, 1880,) gives as the probable origin of fever the following: Through irritation of the vasomotor centre a tetanus of the smaller superficial arteries occurs, which, by diminishing the circulation in the skin, shuts in the heat. The outset is accompanied by a chill or not, according as the tetanus occurs suddenly or gradually. In some unknown way an increased production of heat is caused by the shutting in of heat. Throughout the periods of rising temperature there is decreased activity of heat elimination relatively to the new and increased rate of heat production. The elimination of heat may or may not be absolutely decreased. Even with tetanus of the arteries and rising temperature the excessive heat production may be enough to make the absolute amount of heat eliminated greater than normal; but during the rise, incompetency of the heat eliminating system, dependant on tetanus of the superficial arteriodes, remains a cause of the rise and of the increased heat production. Exhaustion

of the tetanus is followed by a more or less gradual increase of heat elimination and fall of temperature, to be followed in turn if the fever continues by a second tetanus and rise of temperature.

CHANGES IN MUCOUS MEMBRANE OF LARYNX INDUCED BY INCIPIENT PHTHISIS.—Dr. Carl Seiler (*Medical Times*, July 3, 1880) gives these changes thus: (1) A peculiar ashy-gray discoloration of the mucous membrane lining the pharynx and larynx, which is different from the mere anæmic paleness so often seen in other cases, and is very difficult to describe, but when once seen is not easily forgotten. (2) A peculiar swelling of certain parts of the larynx, especially of the arytenoid cartilages and epiglottis, which differs materially in shape and appearance from ordinary œdema of the parts. The arytenoid cartilages, either on one side or the other, or on both sides, assume the shape of a pear, the largest amount of swelling being near the inter-arytenoid commissure, while it tapers off in the line of the ary-epiglottic folds. Usually we notice this pyriform swelling on that side which corresponds with the lung most affected, but occasionally we find cases in which the reverse is true. Less frequently we find a turban-like swelling of the crest of the epiglottis, which, at the same time, assumes a horse-shoe bend. In cases where we observe the pyriform swelling of the arytenoid cartilages, the lining tissue has not yet begun to break down; but as soon as the breaking down takes place in the lining the epiglottis begins to be affected.

VALVULAR DISEASE OF THE RIGHT SIDE OF THE HEART—ITS TREATMENT.—Dr. A. Morison (*Edin. Med. Jour.*, Feb. and March, 1880,) contributes an able paper in which he reaches the following conclusions: (1) A more or less orthopnœic position is best suited to many cases of organic valvular disease of the dextral valves, but there are exceptions to this rule, as in cases of pulmonary valvular lesion, especially of pure pulmonary regurgitation, just as we find a recumbent position best adapted to the analogous instances of aortic regurgitation. (2) The cutaneous circulation must be maintained by adequate warmth and arterialization of the blood by as free a ventilation as is compatible with the maintenance of sufficient heat. (3) Food must be given to patients from

dextral disease under the same restrictions as in the case of other cardiac sufferers, but that fibrinogenous material must be even less consumed than in other cases, from the greater liability to spontaneous coagulation and alcohol in one form or another is absolutely necessary, but must be cautiously administered. (4) Vene-section is calculated to render signally good service in the retrograde plethora due to dextral valve lesions. (5) External applications must be employed in such cases under the same circumstances as in other forms of cardiac disease. (6) The use of ammonia, from properties peculiar to it, is indicated, but that asphyxial conditions may render its combination with chlorate of potash or some other oxygenator advisable. (7) The employment of digitalis is not only useless in cases of organic disease of the dextral valves, but fraught with a danger which cannot be exaggerated, and the chief cause of its pernicious influence is probably its systolic action upon the left ventricle. (8) In functional valvular disease of the right heart, arising from ventricular dilatation, and especially in functional tricuspid regurgitation, digitalis carefully administered may prove very beneficial by diminishing the capacity of the ventricle and restoring or improving the competency of valvular action.

ALBUMINURIA — SIGNIFICANCE OF THE SYMPTOM UNDER VARIOUS CONDITIONS.—Sir Henry Thompson (*Lancet*, Jan. 3, 1880) thus sums up the facts regarding the significance in different cases of the symptom albuminuria: (1) When a patient's urine, habitually clear, acid, and free from the faintest blood tint, throws down to the test of heat and nitric acid a notable quantity of albumen, the source of that albumen is the renal circulation, and, if persistent, the case is almost certainly one of grave import. The presence of organic change in the kidney structure is to be inferred, and other evidence of its existence, if sought for, will probably be found. (2) A very slight admixture of blood in any urine, no matter what the source of hemorrhage, will produce a very considerable deposit of albumen. It is evident, then, that albumen in such cases, although sometimes of grave import, is not necessarily so, and that it may furnish an indication of the slightest possible importance, inasmuch as a little blood may appear in the

anterior passages from a lesion which is slight and temporary in its nature. (3) Pus in the urine may, and most commonly does, proceed from some local condition of the bladder, occasionally indeed from local inflammation of the urethra. Nevertheless albumen will be deposited on applying appropriate tests. It is evident that albumen from this source is of trivial consequence as compared with that which points to a disorganization in the structure of a vital organ, and that one of the most important in the whole body. The urine may thus be loaded with albumen, and yet your prognosis will be by no means unfavorable.

TREATMENT OF NASAL POLYPI BY ACETIC ACID—(*Med. Press and Circ.*, March 17, 1880).—Some years ago acetic acid was much employed in abnormal epithelial growths and some canceroid affections. After being almost abandoned in these cases, its use has been recently revived by Drs. Caro and Caccarini in mucous polypi of the nose. The acetic acid is injected in four or five-drop doses into the substance of the polypus by means of a hypodermic syringe. The injection is made once, rarely twice. The polypus is generally detached in four or five days and some disinfectant injected to get rid of the unpleasant smell. In accordance with this method, Dr. Caro, on August 12, injected six drops of pure acetic acid into a mucous polypus in the left nostril of a man, æt. 60. Four days afterwards the polypus fell off. On September 20 a small mass remained on the middle turbinated bone. Four drops were then injected. No disagreeable effect was produced. The smell of the putrifying polyp was corrected by injection of carbolic acid.

THE NEUROTIC ORIGIN OF GOUT.—Dr. Dyce Duckworth, Edinburgh (*Brain*, April, 1880), sums up, as follows, a thesis in support of the view that gout is a malady of neurotic origin: (1) I contend that the diseased conditions which are recognized as of unequivocal gouty nature, are primarily dependent upon a functional disorder of a definite tract of the nervous system, and that thus gout is a primary neurosis. (2) That there is much in the nature of the malady itself, and much evidence forthcoming, by way of analogy, to warrant the conjecture that the portion of the nervous system specially involved is situate in some portion of

the medulla oblongata, where possibly may be placed a trophic center for the joints. (3) That the gouty neurosis may, like others, be acquired, intensified, and transmitted; also, that it may be modified variously, and commingled with other neuroses; that it may suffer metamorphic transformations, or be altogether repressed. (4) That this diathetic neurosis imposes its type upon the affected individual in definite nutritional modes, affecting the assimilating and excreting powers, exhibiting marked peculiarities in nervous impressibility, and determining, in more or less degree, a physiognomy of the gouty. (5) That a large part of the phenomena known as gouty are due to perverted relations of uric acid and sodium salts in the economy, resulting from the morbid peculiarities mentioned under the last head. Thus there is excess of urate of soda in the blood before and during gouty explosive manifestation, and there is determination (by nervous influence in all probability) either of this salt to the affected part (Garrod), or there is a too free formation of it at these inflammatory points whence it is deposited locally and also set free into the circulation (Ord). The renal excretory power for uric acid appears to be temporarily inhibited as part of the process of gouty paroxysms. This measure of renal inadequacy would appear to prevail in varying degree as a part of the specific neurosis disorder. In chronic gout, when structural disease has occurred, either tubal, with deposition of urate of soda, or interstitial with shrinking of the organs, the renal inadequacy may admit of more mechanical explanation. (6) That in primary or inherited gout the toxæmia is dependent on the gouty neurosis; is the outcome, in whatever degree of it, and is therefore a secondary manifestation. (7) That in what I term secondary or acquired gout, the toxæmia is directly induced by such habits as overload the digestive and excretory organs, and constantly prevent complete secondary disposal of nutritional elements of food; that if, together with such toxæmia, distinctly depressing and exhausting agencies affecting the nervous system come into operation, the special neurotic manifestations of the gouty diathesis will occur, and be impressed more or less deeply upon the individual and his offspring. (8) That this theory of gout, better than any

other, correlates all the known factors concerned in the production of the varied symptoms of the malady; and while it displaces its humoral pathology from the prominence it has so long occupied, it takes full cognizance of it, and seeks to place it in a clearer relation to the phenomena of the disease. (9) That if it be desirable to refer various maladies to their distinct place in pathology, without reference merely to their chemistry, histology or neurology, the affection known as gout may perhaps most correctly be relegated, along with some others, to a class of diseases which may be termed neuro-humoral. (10) An argument is adduced from the *juvantia* afforded by colchicum in favor of the theory that has been set forth. The action of this remedy is shown by the researches of Garrod to be due to no power which it possesses to promote the elimination of uric acid. Cochicia, like most of the alkaloids, affects powerfully the nervous system. Dr. Meldon found that it induces a general glow at the surface of the body, diaphoresis, throbbing of the blood-vessels, and palpitation, and that it produced in his own case at least an invigoration of the mental energies. In larger doses the effects are most marked along the whole tract supplied by the vagus, and thus cardio-vascular, gastric and enteric symptoms ensue. The peculiar benefit derived from this drug is not secured in any other form of inflammation, and thus it is plainly specific. Its useful action is doubtless exerted upon the vaso-motor nerves. The manifestly good influence of all agencies which cheerfully inspire the mental condition in the goutily-disposed must not be omitted from consideration amongst the *juvantia* both of prevention and cure.

HEPATIC COLIC—AN EXPERIMENTAL STUDY OF ITS TREATMENT.—M. Laborde (*Gaz. des Hôpitaux—Med. Surg. Reporter*, April 10, 1880) gives the results of an experimental inquiry into the treatment of hepatic colic:

(1) The excretory bile canals are endowed with a power of contraction; they are consequently able to contract spasmodically on the application of a stimulus, whether this be applied directly or indirectly. The contractility resembles that of unstriated muscular fibre, and the existence of such fibres in the walls of the canals is clearly shown by histology and is in perfect harmony with the results obtained from experiment. (2) The

mucous membrane of these channels is exceedingly sensitive, and this occasionally manifests itself under the influence of more or less intense stimuli by painful symptoms and by reflex phenomena, shown directly by spasms of the channels themselves. (3) The phenomena are particularly induced by the presence and contact of foreign bodies, such as biliary calculi, whose spontaneous migration is thus rendered more difficult. These changes of place, when they occur, are only accomplished after a longer or shorter period, and they possess the peculiarity that the foreign bodies are always carried toward and finally into the gall bladder. (4) Anæsthetic and antispasmodic medicines are best adapted for the treatment of this morbid state of which the mechanical conditions can readily be realized by experiment. (5) These remedies, more especially morphia, chloroform and hydrate of chloral, act by exercising at one and the same time an anæsthetic and paralyzing influence, which produces a relaxation of the spasmodic contraction, a distribution of the spasmodic canals and an accumulation of the bile, which acts upon the foreign body by means of a vis a tergo and forces it outward toward the intestines. (6) The combination of morphia with hydrate of chloral or with chloroform is the most effectual way of obtaining the required results, which are the insensibility of the biliary canals, the prevention of pain and the favorable influence upon the migration and rapid extrusion of the extraneous substances.

MEDICINAL RASHES.—Dr. Morrow (*New York Medical Journal*) has collected sixty cases of the quinine exanthem. Thirty-eight of these were of an erythematous character, twelve resembled urticaria; two cases had a vesicular rash, five a purpuric. Morrow believes that the source of the trouble lies in an impairment of function in some of the organs of excretion, throwing the work of eliminating the drug upon the cutaneous emunctories. Behrend suggests that the drug gives rise to certain chemical combinations, which, though ordinarily inoffensive to the tissues, may, in certain abnormal conditions of the skin, provoke eruptions. Dr. J. Behrend (*Berlin Klin. Woch.—Archiv. Dermatology*) says that drugs may cause extremely varied forms of eruption. Thus opium, belladonna, stramonium, turpentine, cubeb, copaiva, chloral hydrate, quinine, cal-

omel, iodide of potassium, bromide of ammonium, have all been known to produce an eruption of an erythematous character, either diffused or occurring in isolated points, like the rash of scarlet fever. Papular erythema has been observed after arsenic, digitalis, quinine and chloral hydrate. Mercury, bromide of potassium, iodide of potassium and cubeb have caused eczematous eruptions. A bullous eruption has followed the administration of phosphoric acid, copaiva and iodide of potassium. An exanthem resembling zoster has followed the use of arsenic. Hæmorrhagic eruptions have been observed after quinine, chloral hydrate, iodide of potassium, and salicylic acid. Pustulate eruptions follow iodide and bromide of potassium. The most common form of eruption following the use of drugs is the erythematous. It often occurs in a discrete, punctate form, like the rash of scarlet fever. Desquamation follows at the expiration of two weeks and in the form of large lamellæ. A peculiarity of drug eruptions is their tendency to diverge from the types of the corresponding forms.

TRANSFUSION IN ANÆMIA.—E. A. De Cailhol, M. D., (*Ohio Med. Recorder*, April, 1880) says that transfusion of healthy blood is indicated in anæmia, especially in such cases as have become so much reduced as to be unable to retain any food in the stomach. In a case of his, last year, he transfused non-defibrinated blood after the process of Dr. Moneog, the French specialist in transfusion. The blood was taken from the patient's husband, who was strong and healthy, and two ounces transfused at the first sitting. The following day the patient was required to rest and take milk in small quantities. Now began the building up process, and having ordered a rich *bouillon* made of beef and pork pancreas, he injected of this two ounces and two ounces of defibrinated bullock's blood into the rectum, every three hours. The first transfusion was made the 6th of June, 1879. On the 21st of June, the same year, another ounce and a half was transfused, and again, on the 8th of July following, another ounce was administered in the same way. The patient improved rapidly so that after the third transfusion the stomach was strong enough to digest chicken, with the aid of a little pepsine. The doctor says that blood to be transfused should be taken from a "healthy, sound man," between

twenty and forty years of age. It must not be defibrinated. It must be transfused slowly. The operator must bear in mind to have everything ready and have proper assistance, when he will have four minutes in which to make transfusion before any blood clots will interfere with the operation. The hemaphysphorus (instrument for transfusion) should not be too warm, as the blood will clot sooner if it is. According to Moneog's experiments, defibrinated blood loses by the removal of its fibrin the best part of its constituents and is made unfit for circulation.

PERTUSSIS TREATED BY CARBOLIC ACID.—R. W. Powell, M. D., (*Canada Medical and Surgical Journal*), has the following: Carbolic acid has had an extended trial in the treatment of pertussis, with a result altogether satisfactory, the cure taking place in from four to ten or twelve days, the whoop usually ceasing first and the cough stopping in a few days longer. The treatment is to combine the internal administration of the acid per os, with its inhalation by diffusing it in the air of the room. Dr. Powell reports thirteen cases with successful and speedy cures in nearly all the cases, one or two proving obstinate. [We suspect that the curative action of the carbolic acid is in its local effect similarly as is the curative action of quinia sulph. in these cases.—ED.]

TREATMENT OF TYPHOID FEVER.—Dr. Wm. Jenner, (*London Lancet*), makes the following remarks concerning typhoid fever. It is impossible to cut short the disease by any treatment. In most cases the disease is produced by the action of a small portion of the excreta from the bowels of a person suffering from typhoid; the air from a drain or air blowing over dried feculent matter may convey the poison to the patient, or his own fingers may carry it to his mouth, or the vehicle for the poison may be a fluid as milk and water. The poisonous properties of the excreta may be destroyed by boiling the fluid in which they are contained, though not by filtering the fluid. Then, the natural duration of a well developed case of typhoid fever is twenty-eight to thirty days. By self treatment in the earliest stages of typhoid fever, the patient is proven to do himself great mischief either by taking violent exercise, strong stimulants, or drastic medicines. The diet should be liquids with farinaceous food and bread in some form, if

desired; broths with vegetable juices, strained fruit juices, avoiding grapes on account of skins and seeds. Milk must be used with caution. If the curd be undigested, great evils arise, and the patient is placed in jeopardy. Pure water may be given ad libitum. Small doses of mineral acids are grateful and, perhaps, beneficial. Then, the fever is to be met by rest, quiet, fresh air, mixed liquid food, blood diluents, and by the exclusion of fresh doses of poison; the intestinal lesion by the careful exclusion from the diet of all hard and irritating substances, and the removal from the bowels of any local irritant. Headache may be alleviated by either hot or cold applications, and ceases spontaneously in about ten days. Sleeplessness generally disappears in the second week; still, if it be persistent, hyoscinum, bromide of potassium, and chloral are valuable alone or combined. With high temperature a tepid bath, or sponging the surface will often induce sleep. No treatment can arrest or limit the specific changes in the intestinal glands; but, over the diarrhœa, which usually accompanies these changes, we can in many cases exercise a decided influence by careful attention to diet as above directed and avoidance of accumulation of undigested food.

From three to five actions in twenty-four hours is rather advantageous. The most important and not infrequent cause of inaction of the bowel in typhoid fever is deep ulceration of one or more of Peyer's patches. Large superficial ulcers favor diarrhœa, a single small deep ulcer will paralyse the action of the bowel; a most important point to bear in mind. This state of things is often the cause of excessive tympanitis between the third and fourth weeks of the fever. To relieve this turpentine externally is most frequently used, but in no case has Dr. Jenner seen a diminution of the distension which seemed to be *propter hoc*. Charcoal to relieve fœtor, pepsin to promote digestion, alcohol in fit doses to improve nerve energy, and so to increase the muscular power of the bowel are each valuable in turn. A long tube passed up the bowel will often discharge large amounts of flatus. In intestinal hemorrhage the patient must be kept recumbent, and not allowed to make any effort when using the bed-pan. Starch enemata with ten or fifteen drops of laudanum at once, and acetate of lead with from three to

five drops of laudanum every two or three hours by the mouth are to be given. Suddenly repeated and copious hemorrhage may call for the use of ergotine hypodermically and the ice bag over the ilium. Cold baths, quinine and salicylate of soda employed to reduce high temperatures have disappointed the writer. Free action of the skin is often attended with great relief, and nothing assists this action so readily as a large warm and moist flannel covered with oiled silk applied over the abdomen and chest combined with the administration of warm and bland fluids. When the perspiration is profuse and exhausting, the patient must be lightly clothed and his skin wiped every few moments, if necessary, with a warm napkin and dry clothes placed between the wet linen and the skin. To avert death from failure of the heart's action, alcohol is the great remedy. Delirium due to fever is never conjoined with headache; headache in typhoid fever may be most intense, delirium most violent, but the headache ceases before the delirium begins. Alcohol is as the rule the remedy for delirium, but is to be used with caution. It is better to give too little than too much—rarely is more than twelve ounces needed during the twenty-four hours. Tremor is sometimes excessive, and is almost always a symptom of deep intestinal ulceration.

Therapeutics.

OXALATE OF CEREUM—ITS VALUE IN RELIEVING COUGH.—Dr. H. Cheesman (*Med. Record*, June 12, 1880,) concludes the details of recent observations on the use of oxalate of cereum for the relief of cough, thus: (1) Cereum oxalate may be given safely in doses of ten grains or more, three times a day, for many days in succession. (2) The only symptom noted from such doses is a slight dryness of the mouth for the first few days. (3) It is probably more efficient when taken dry upon the tongue. (4) Its effects are not fully apparent until it has been taken two or three days, and continue about the same length of time after its use is suspended. (5) For chronic cough it is best taken on an empty stomach, early in the morning and at bed time, with other doses during the day if required, the initial dose for an adult being five grains. (6) It is, in the majority of cases, an efficient cough medicine, at least

for a considerable time, and it is very valuable—as an alternate with other drugs used for that purpose. (7) It does not disturb the stomach as do opiates and most other cough remedies, but, on the contrary, it tends to relieve nausea and to improve digestion. (8) The different preparations on the market are not of equal value, and when success is not obtained with one another should be substituted.

WARBURG'S REMEDY FOR MALARIAL FEVERS.—The *Med. Press and Circular* gives the following composition of this celebrated compound:

- ℞ Aloes (socot) libram.
 Rad. rhei. (East India.)
 Sem. angelicæ.
 *Confect. damocratis, ℥℥ uncias quatuor.
 Rad. helenii.
 Croci. salivi.
 Sem. fœniculi.
 Cret. preparat., ℥℥ uncias duas.
 Rad. gentianæ.
 Rad. zedoariæ.
 Prep. cubeb.
 Myrrh elect.
 Camphor.
 †Bolet. laricis, ℥℥ unciam.

The above ingredients are to be digested with 500 ounces of proof spirit in a water bath for twelve hours, then expressed and ten ounces of disulphate of quinine added; the mixture to be replaced in the water bath until all the quinine be dissolved. When cool, filter.

SALICYLATE OF SODIUM — ITS VALUE IN CHILDREN'S FEBRILE DISORDERS. — Weiss (*Alg. Med. Cent. Zeit.—Bost. Med. Jour.*, July 15,) offers the following as the results of his observations: (1) Salicylate of sodium is a powerful anti-pyretic remedy in the typhoid fever of children, which, while it does not shorten the course of the disease, renders it much milder. (2) The results with this remedy, in typhoid fever, are better than have hitherto been obtained by quinine, cold water baths, cold wrappings and the various mineral acids. (3) The beneficial effect can only be obtained when large doses are given at short intervals, and the author has never observed any ill effects following its use. (4) In diphtheritis, salicylate of sodium has no influence upon the course of the dis-

ease. (5) In acute articular rheumatism, the effect both upon the fever and upon the pain is a remarkably favorable and quick one. (6) In intermittent fever salicylate of sodium is only of service when given immediately before the expected attack. As quick as the remedy is left off the paroxysms return.

Obstetrics.

RECTAL ALIMENTATION AND THE INDUCTION OF ABORTION FOR THE RELIEF OF THE OBSTINATE VOMITING OF PREGNANCY.—Dr. W. W. Potter (*American Journal of Obstetrics*), from an interesting discussion formulates the following principles: (1) In extreme cases of gravid nausea the stomach often becomes so disturbed in its functions as to render the digestion of food harmful, nay, even impossible. Hence arises a degree of exhaustion and inanition which may result in death. (2) Stomachal rest, which oftentimes must be absolute as far as a positive prohibition of all buccal ingestion can make it so, must be strictly enjoined; moreover, this may be, and often is, a condition precedent to therapeutical success in the management of cases where life is threatened. (3) Rectal feeding and medication become alike important factors in securing the necessary rest for the stomach, and indispensable ones in maintaining and improving the nutrition of the body. The demands of pregnancy are such as to require even greater nourishment than the non-gravid state; whereas in the condition under discussion, the excessive vomiting reduces the supply far below the ordinary requirements of the system in the non-pregnant state, whence results inanition, exhaustion, and even death itself. (4) The maintenance of nutrition by means of rectal feeding is accomplished by a reversal of normal-peristaltic action in the intestinal tube. (5) By the careful and systematic employment of feeding and medication through the rectum, the necessity for the artificial induction of abortion for the relief of gravid nausea may be reduced to a minimum. (6) Finally, in cases which have resisted the employment of all milder expedients and life still seems threatened, the induction of abortion for the relief of the excessive, obstinate and uncontrollable vomiting of pregnancy becomes an alternative measure, justifiable alike by medicine and morals.

*This confection is to be found in the London Pharmacopœia, 1746.

†This is the polyporus laricis. Polyporus officinalis. Boletus purgans.

Surgery.

ORIGIN OF URINARY CALCULUS.—Dr. H. F. Campbell (Trans. Amer. Med. Association, 1879,) presents in an elaborate paper the following views respecting the origin of urinary calculus: (1) The largest proportion of subjects being infants at nursery periods of life, calcareous solutions are not taken by them to furnish the lime for calcareous concretions, while the adult who rarely originates stone drinks freely of them. (2) Uric acid, forming the basis of nearly all calculi, so far from being favored by solutions of lime, would rather be dissolved by them. (3) The food of the nursing infant being largely albuminous, uric acid is found to predominate in the blood and urine. This uric acid, which in the adult exists in less proportion, and is probably dissolved in hard water districts, in the infant forms a nucleus without the chance of solution in the absence of alkaline drinks. (4) The albuminous food of infancy furnishing abundant material out of which uric acid may be produced, the one overshadowing influence instrumental in its production and the formation of idiogenic nuclei is the functional disturbance of the liver—hepatic paresis—which, during this period, is produced by reflected dental irritation. As glycogenesis is artificially produced in the experimental demonstration of Claude Bernard, by irritating the floor of the fourth ventricle; so lithogenesis in the nursing infant is morbidly produced by reflected dental irritation of the fifth pair implanted in the same nerve center. Imperfect disintegration and imperfect oxidation of albuminous material in the liver is the result of the hepatic paresis thus superinduced. Hence, idiogenic nuclei and consequently calculi are abundant at this period. (5) After nuclear agglomeration has taken place, another excitator of reflex irritation and new avenues of transmission are established. Both nuclei from this time have a common history; both excite in a like degree and in the same manner the elimination from the blood and precipitation of the calcareous elements in the further development and growth of the stone. Calcareous solutions, as drinking water, probably now add considerably to the rapidity of the accretion. (6) Irritation of the urethra, of the prostate gland, of the prepuce, all originate nuclei and promote precipitation; under the influence of spinal injury we have

seen immense productions of calcareous deposits. (7) The influence of living in malarial districts may well and rationally be accepted as acting most potently in the neuro-dynamic origination of calculus. Whether in hard water districts or in free stone regions, it is known that the nervous system sustains serious impairment of its controlling functions over the secretory organs through malarial blood-intoxication. No organ suffers greater functional derangement than the liver, and on rational grounds we may predicate the abundant production of uric acid and the nuclear agglomeration of idiogenic nuclei. The critical discharge of every paroxysm is but the throwing down of earthy phosphates, the ashes of the burnt up tissues of the body. Thus, under nervous aberration in malarial fever, too, we have the production of the uric acid nucleus, and also the lime phosphates for super-stratification.

MECHANICAL TREATMENT OF HIP DISEASES.

—Dr. C. F. Taylor (Boston *Med. Jour.*) makes some valuable observations concerning the mechanical treatment of hip disease. In this treatment it is not a question of splints—nearly everything can be accomplished by cheap and home-made appliances once the condition is clear in the mind—but one of different conceptions of symptoms. The first indication is for rest to the diseased limb. Plaster of paris and similar dressings only give rest from motion. The irritated muscles by pressure, etc., must be overcome by counter extension. The extension must be carried until the muscles relax, and it must be maintained until muscular irritability is lost and the joint inflammation becomes retrogressive—a process requiring from three to twelve months, according to circumstances. With the setting up of the reparative process there should be motion in the joint, in order that reparation shall be accomplished under the stimulus of motion.

Thus extension, as a means of treatment, can cover but a certain portion of the time through which an inflammation of the hip joint must pass in its several stages. The limitation for the use of extension is reached at that point of time when the muscles have become soft and compressible and the interstitial movements have become completely retrogressive. From this moment reflex irritation of the muscles ceases entirely, and with it the necessity for extension. Motion,

previously harmful, becomes now a necessity to a perfect articular hygiene.

CREPITUS IN HIP INJURIES.—Dr. Oscar H. Allis, (*Trans. Penn. State Med. Soc.* '79), remarks that of all the points of diagnosis none is harder to describe nor more thoroughly understand than crepitus. The degrees and qualities of the adventitious sounds and impressions we designate by dry and moist crepitus are quite as unteachable as the crepitus and subcrepitus of physicians, the chief difference being that students plead ignorance of the latter while no one doubts that he understands, or may easily and fully comprehend the former. The student is told that he can diagnosticate fracture of the neck from dislocation by the presence of crepitus in the former and its absence in the latter. From an ample experience I can say that crepitus is the least reliable sign in fracture of the neck, is seldom satisfactorily elicited, and when absent does not influence the opinion of the surgeon, while in cases of dislocation I have elicited a crepitus that could be heard distinctly by every one about the bed. The fact is that bone is often denuded of its cartilage by the wrench that dislodges it, and the crepitus that follows is that of bone upon bone. Hence, it is not true to say that in dislocation there will be an absence of crepitation, or if any be present it will be moist like that of cartilage rubbing against dense structures. One should rather be made to understand that crepitus may arise from various causes, and not simply from broken bone, and that nothing short of actual and extensive experience can make this symptom a reliable one.

DEPRESSED CICATRICES—THEIR REMEDY. Mr. Wm. Adams, (*Louisville Med. News*), gives this procedure for the above object as follows: (1) In subcutaneously dividing all the deep adhesions of the cicatrix, by a tenotomy knife introduced a little beyond the margin of the cicatrix and carried down to its base. (2) In carefully and thoroughly everting the depressed cicatrix turning it as it were inside out, so that the cicatricial tissue remains prominently raised. (3) In passing two hair-lip pins or finer needles—in small cicatrices one needle will be found sufficient—through the base at right angles to each other so as to maintain the cicatrix in its everted and raised form for three days. (4) In removing the needles on the third

day and allowing the cicatricial tissue—now somewhat swollen, succulent and infiltrated—gradually to fall down to the proper level of the surrounding skin.

In performing this operation one puncture with the smallest tenotomy knife, or a still smaller knife such as ophthalmic surgeons use, will be found sufficient, when the depressed cicatrix is of moderate size and its adhesions are to fascia rather than bone. In larger cicatrices two punctures, one on each side of the cicatrix, may be necessary; and in some deeply depressed cicatrices adherent to bone, as in case third in which the apex of the cicatrix was adherent to the lower jaw and more than an inch from the external orifice, which was large enough to admit the tip of a finger, three punctures may be necessary. In this case three punctures were made, one on each side of the cicatrix and one a little beyond the apex of the depression; the last puncture being made over the margin of the lower jaw while a probe was passed down to the apex as a guide to its position.

Through these minute punctures the needles may be passed after the cicatrix has been everted so that even unnecessary needle scars may be avoided. The chief difficulty in the operation consists in the very careful separation of all the deep adhesions of the cicatrix, taking care to avoid making cutaneous punctures on the one hand, and on the other to avoid wounding any venous branches, which may be in the immediate neighborhood of the cicatrix.

THE FORCEPS IN TEDIOUS LABORS.—P. C. Williams, M. D. (*Maryland Medical Journal*, June, 1880), says the great function of the medical profession is to relieve suffering. When that suffering cannot be cured it becomes our duty to mitigate it as much as possible. This principle applies with peculiar force to the practice of obstetrics. Child-birth must be accompanied with more or less suffering—it cannot be wholly prevented—but its duration can and ought to be lessened as much as is consistent with the well-being of mother and child. Obstetric cases may be divided into three classes: (1) Those which involve no risk to mother or child. (2) Those cases which only bring danger to the child. (3) Those cases which may prove hazardous to both mother and child. This class includes those cases denominated "tedi-

ous labors," frightfully exhausting and difficult as they are sometimes, and all cases of difficult labor from narrow pelvis, deformed pelvis, over-sized child, serious malposition of child, placenta previa, eclampsia, etc., etc. What is a tedious labor? It may be answered that it is a labor that is so far prolonged as to endanger the safety of mother or child, or both. It is impossible to determine the character of a labor merely by the time required to terminate it. The duration of the most natural and normal labors varies almost indefinitely. Some women have extremely short labors, while others have long labors, and all equally natural and accomplished without unusual fatigue or difficulty.

There is another class of women whose labors are long and attended with a great amount of suffering. The pains are violent and long, but no "progress" is made. Such a woman will soon become depressed, nervous and anxious. Again we see a woman who has short, ineffectual pains, and sooner or later, like the one just mentioned, becomes worn out and nervous, and irritable, because of the lack of progress. In both of these supposed cases there is no mechanical hindrance to the labor, but they would be denominated "tedious labors." In these cases it becomes the duty of the attending physician to interpose artificial delivery by the aid of the forceps, whenever the patient's strength begins to fail, or even before, if the symptoms indicate too severe punishment. Again, we have a case where the fetal head has engaged in the pelvis, and has descended fairly into the excavation, but is arrested in its further progress by a rigid perineum or by a narrow vagina, or by the great breadth of the fetal shoulders, or by any other obstructions which obstetricians know how to appreciate so well; it becomes our duty to interfere and bring to bear the principle enunciated at the outset of this article, and resort to chloroform and the forceps and deliver the child. These remarks apply with double force to those cases in whom we find in the mother a narrow pelvis, or in whom the pelvis, being normal, the child is too large, and refuses to engage in the superior strait. In either case the labor is delayed by the disproportion between the head of the child and the maternal pelvis. What shall be done in such a case? Shall we wait indefinitely, or shall we interfere? Possibly

if we wait long enough nature may do great wonders, but at what expense? Very likely the death of the child will pay the first installment of the forfeit for waiting, and pelvic inflammation and abscess and vesico-vaginal and recto-vaginal fistula will pay the second installment of the forfeit, if indeed the death of the mother do not occur from exhaustion or hemorrhage immediately, or ultimately from metro-peritonitis. Interference becomes necessary in such a case. When and how shall we interfere? I answer interfere early, and interfere with chloroform and forceps. Begin as soon as the os uteri is dilated or dilatable. The forceps in vertex presentations are preferable to version, are safer to both mother and child, and usually more expeditious.

GASTROTOMY IN CASE OF ŒSOPHAGEAL STRICTURE.—Dr. F. Herff, in the *St. Louis Courier of Medicine*, reports a case of stricture at middle of œsophagus, caused by caustic lye. The child was seven years old. It was impossible to swallow solids and sometimes even liquids. As a result her strength became reduced, and she was failing daily. Gastrotomy was proposed and executed. First adhesions were produced between the stomach and abdominal wall, by a double row of sutures. After this an opening was made into the stomach. The wound healed without any complication. Liquids are poured into the stomach by an ordinary funnel; solid food is cut fine, laid on the hole and pushed through by a No. 12 Maisonneuve's India rubber catheter. When she stands the fistula is closed by a valvular adhesion between the stomach and peritoneal wall. When she lies down the gastric contents will run out, unless prevented by the insertion of a large tracheotomy tube, closed by a rubber cork. This tube is worn day and night without any inconvenience. The operation was done Aug. 31, 1879, and the report made Dec. 12, 1879.

WOUNDS TREATED BY FREE USE OF PHENOL.—Dr. Thos. M. Markoe (*American Journal Medical Sciences*) presents the results obtained from the treatment of fifty-two cases of severe surgical injuries by the free and constant use of appropriate solutions of carbolated water. The details of the treatment provided for the constant or frequent moistening of the inner surfaces and cavities of the wound by the carbolated

solution. The writer's idea is that the tendency to inflammation is controlled by the use of carbolic acid. Thus is obviated the dangers to which these wounds are liable during the process of repair. No trouble is taken to exclude the atmosphere or atmospheric germs. As his success is uniformly excellent and accords with that of others who have followed the same principle, he is convinced that carbolic acid controls and modifies vital activities. If the ordinary view be insisted upon, then Markoe's plan of using carbolic acid is as effectual as Mr. Lister's.

HYSTERICAL JOINT AFFECTIONS.—Dr. N. M. Shaffer (*Archiv. Medicine*, April, 1880), from an extended study of these perplexing cases, concludes: (1) In chronic osteitis of the articulation there exists a specific muscular atrophy due to the lesion; an invariable muscular spasm, which is present night and day, and which, while not modified by the customary doses of chloral or opium, disappears completely under the anæsthesia induced by ether. There is also present a marked reduction of the faradic contractility of the muscle thus affected. (2) In the emotional contractions we find the atrophy of disuse only—a variable muscular rigidity which disappears during natural sleep or yields to opium or chloral, and a normal faradic contractility. (3) In the hysterical contracture we see a permanent muscular rigidity which, like the muscular spasm of chronic osteitis, is wholly dissipated by the profound anæsthesia of ether; but we find in connection with it functional atrophy only, and a normal faradic reaction of the muscle. (4) The test of anæsthesia, induced by ether or chloroform, as applied to the differential diagnosis of hysterical contraction and chronic articular osteitis, is not of value *per se*, though some eminent authorities have stated otherwise. Ether or chloroform will remove the “permanent contracture” of the one, and suspend the reflex spasm of the other. The elements of absolute contracture, such for example as are met with in congenital talipes or torticollis and intra or extra capsular changes being eliminated, we should bear in mind in making our examination of suspected joints under ether, Charcot's valuable deduction, viz., “that the existence of a spinal organic lesion of more or less gravity will be placed almost beyond doubt, if under the influence of sleep, in-

duced by chloroform, rigidity of the members gives way slowly, or even persists to any marked extent.”

PARALYSIS FROM ANGULAR CURVATURE OF THE SPINE.—Dr. John Duncan (*Brain*, April, 1880), from the study of a large number of cases of angular curvature of the spine, arrives at the following conclusions: (1) That there are two distinct varieties of inflammation which attack the bodies of the vertebræ, the first from constitutional the second from traumatic causes. (2) That in strumous cases there is comparatively little tendency to affection of the spinal cord. If paralysis makes its appearance, it is commonly from pressure on the cord, and is sometimes suddenly fatal in the cervical region. (3) That in chronic interstitial absorption there is a great tendency to paralysis, which presents the usual characters of what has been termed pressure myelitis, with its secondary degenerations. In these cases paralysis comes on early; if there be no paralysis, the disease runs an exceedingly slow course; patients commonly die from the effects of the paralysis.

GARSON ON INEQUALITY IN LENGTH OF THE LOWER LIMBS.—(*N. O. Medical and Surgical Journal*,)—The asymmetry of the lower limbs in living persons has been very satisfactorily proven by Drs. Wight of Brooklyn, and Cox of New York, but it had not been shown whether the asymmetry was due to unequal development of the bones or of the soft parts. To ascertain this point, Dr. Garson made an extensive series of measurements of the bones of the lower extremities of skeletons in the museum of the Royal College of Surgeons of England. The results of his measurements show that the combined lengths of the femur and tibia on one side are seldom the same as the combined lengths of those bones on the opposite side of the body. He found that in 10 per cent. only are the right and left limbs equal. This corresponds very nearly with the results obtained by D. P. Wight from his measurements of the limbs of living persons. In the majority of cases where the limbs were equal, they were so by compensation, that is, by the tibia being shorter when the femur was longer, and vice versa. In 35.8 per cent. the right limb was found to be longer than the left, the average preponderance of the former over the latter being 3.3

millimetres. In 54 per cent. the left limb was longer than the right, and its average preponderance over the right was 4.8 millimetres. The left leg, therefore, is not only more frequently longer than the right, but the difference between the lengths of the limbs is greater, generally, when the left is the longer. Again, while the left femur is the longer the left tibia is usually the shorter. The inequalities of the limbs do not seem to be confined to any particular age sex or race.

Diseases of Women.

RECTAL ALIMENTATION AFTER OVARIOTOMY.—Dr. N. Bozeman (*Monograph*) gives the following specific directions for rectal alimentation after ovariectomy. But the same remarks are applicable to many other conditions. The articles best suited for this purpose are unquestionably beef-tea, mutton broth, chicken broth and mashed beef. The last named exceeds by far any of the others. It is prepared by first chopping up the beef very fine, say three pounds, and then putting the whole into a wooden bowl and mashing it with a pestle; now a teacupful of cold water is thoroughly incorporated with the mass. It is now placed in a colander and all the juice pressed or rubbed out, with as much of the muscular fibre as will pass through the holes. Again, the juice is placed in a fine wire strainer and thus cleared of all the larger particles of meat fibre that would otherwise clog or obstruct the pipe of the syringe. Thus is obtained about sixteen ounces of juice, believed to contain about one-third of the three pounds of beef employed. For keeping it should be set in a cool place, or upon ice, and for use warmed over a spirit lamp or otherwise. It may be administered alone or with pancreatin. In the proportion of two ounces to one drachm of the latter an excellent emulsion is formed, which is about the quantity to be used at once. Its use should be commenced three hours after the first dose of opium and quinine, and it is to be repeated every six hours. If it exhibits a tendency to irritate the rectum, ten to fifteen drops of co. liqr. opii must be added. As necessity calls for it, brandy may be added. Thus rectal alimentation, medication and stimulation are carried to the point of giving the greatest amount of nutriment and support.

MUNDE ON PROLAPSE OF OVARIES.—Dr. P. F. Munde, (*Trans. Amer. Gynec. Soc.*, 1879), from a careful study of this subject makes the following deductions:

(1) The subject of prolapse of the ovaries has not received in the text books and periodicals the attention which its importance as a separate affection demands. (2) Ovarian prolapse owing to the normal mobility of the organs, is a very common affection frequently accompanying retro-displacements of the uterus. In by far the greater number of cases the displacement is backwards into Douglas' pouch. (3) The normal, not markedly enlarged ovaries frequently prolapse either in consequence of retro-displacement of the uterus, sudden physical shock, puerperal sub-involution or menstrual congestion. More frequently still does prolapse occur in consequence of moderate enlargement of the ovaries through engorgement or inflammatory hyperplasia. (4) Their prolapsed condition causes even normal ovaries in time to become hyperæmic, hyperplastic and hyperæsthetic, partly through vascular obstruction and partly through the injuries to which they are subjected during defecation and coition. Already enlarged and degenerated ovaries for similar reasons naturally undergo a more rapid pathological change in consequence of their displacement. (5) In rare instances displaced ovaries have been found to become spontaneously replaced; thus after cessation of the menstrual engorgement and through accidental favorable positions of the patient. As a rule, however, a displaced ovary requires to be replaced by artificial means. (6) The symptoms caused by displacement of the normal ovaries while more or less vague are sufficiently severe to attract the attention both of the patient and the physician. Those of displacement of hyperæmic and inflamed ovaries while, also, vague in a diagnostic sense are frequently agonizing in the extreme and entirely out of proportion to those experienced during ordinary uterine disease. Although the rational signs of ovarian displacement in themselves present nothing characteristic collectively they are of significance. (7) The diagnosis of ovarian prolapse is exceedingly easy to the practiced touch per vaginam, rectum, or by conjoined manipulation. (8) The treatment consists in replacing the organs manually, or by position, or by replacing the

uterus if displaced, which is readily possible if the ovaries are not adherent; and then by retaining them in position by tampons, or properly and peculiarly constructed pessaries adapted and moulded according to the need of each individual case. Thus the posterior bar of the pessary may be made unusually broad and thick, or beveled in the centre, or depressed on one side so as to relieve the prolapsed and tender ovary from excessive pressure. After being fitted in malleable material the shape may be permanently fixed in hard rubber. If the ovary be too tender to permit replacement the hyperæsthesia should be reduced by proper antiphlogistic and sedative means and the reduction then accomplished. Indeed, if feasible, it is advisable in any case to endeavor first to relieve the hyperæmia and hyperplasia so long as the organs are readily accessible and then replace and retain them. (9) Much ingenuity and patience may be required to devise proper means for supporting the inflamed and tender ovaries, which, once replaced, should be treated by the well known remedies for chronic oöphoritis. (10) If the ovaries are adherent, the treatment resolves itself into antiphlogistic and narcotic measures; in case of great local or constitutional disturbance the last resort of their removal may be suggested and adopted.

TREATMENT OF CATARRH OF THE CERVIX UTERI.—Dr. Simms, (*Trans. Amer. Gynec. Society*, 1879), states that in the form of cervical catarrh hitherto regarded as incurable, viz: that in which the secretion from the cervix is albuminous and persistent and remains unchanged in spite of all potential caustic applications, he has found the following procedure successful: He dilates the cervical canal with a sharp curette, scrapes out all the fungoid granulations, and then by Paquelin's instrument cauterizes the entire cervix up to the os internum.

JENKS ON INTRA-UTERINE INJECTIONS FOR SEPTICEMIA.—Dr. E. W. Jenks (*Trans. Am. Gynec. Society*, 1879) formulates his views on the above subject thus: (1) In its wide-spreading relations to other causes of puerperal diseases and of death, septicæmia stands pre-eminent; therefore, it is obviously the plain duty of every obstetrician to prevent the absorption of any decomposing materials from the uterus. (2) The objections which have been made to intra-uterine injections in

the treatment of non-puerperal uterine diseases are not applicable to their use for the prophylaxis or treatment of puerperal septicæmia. (3) The deaths attributed to intra-uterine injections have, in the majority of instances, occurred when they were used for other purposes than washing out the puerperal uterus with antiseptic fluid. (4) When a death has taken place on account of washing out the uterine cavity after child-birth with a simple antiseptic wash, the fatal result has not been in consequence of the injection itself, but from the improper manner of giving it. (5) By the observance of proper precautions on the part of obstetricians this mode of treatment is rendered harmless. To secure immunity from danger certain requisites are important, as follows: (a) The mouth and neck of the uterus should be well dilated and a free outlet insured for the injected fluid. (b) Air must not be admitted with the injection. (c) The fluid should be injected slowly and without much force. (d) The fluid used for injection ought not to be of a lower temperature than the normal temperature of the body. (e) Powerful astringents should under no circumstances be injected within the uterus, as they are liable to produce contraction of the os and cervix and thus aid in forcing the injected fluid into the tubes or sinuses. (6) The administration of these injections ought never to be intrusted to a nurse or inexperienced assistant, but should invariably be given by the accoucher himself, with as much carefulness and attention to every detail as he would exercise in the performance of a surgical operation. (7) Intra-uterine injections should be used invariably succeeding child-birth if there exists any of the following conditions: (a) In premature cessation of the lochia with any constitutional disturbance. (b) A purulent or fetid uterine discharge. (c) Any abnormality of the lochia or offensive uterine discharge, attended by elevation of temperature or increased frequency of pulse. (d) If there be good reasons for believing that the uterus contains fragments of placenta, clots, or any animal substance, or is imperfectly contracted. (8) Intra-uterine injections should be more generally used in the prophylaxis and treatment of puerperal diseases than has hitherto been customary, for the following reasons: (a) If properly admin-

istered to puerperal women they are devoid of danger and capable of accomplishing results for good which cannot be attained by any other means. (b) There are no other modes of treatment or remedial agents which act so speedily in lowering the high temperature of puerperal septicæmia, or accomplish better results in certain inflammatory conditions of the uterus peculiar to the puerperal state. (c) They are peculiarly serviceable in causing the expulsion of clots or fragments of placenta, and aid in a marked manner in facilitating the rapid involution of the uterus. (d) They have diminished in a remarkable manner the number of deaths which to all appearances were inevitable from puerperal poisoning.

PERFORATED LESION THROUGH DOUGLAS' POUCH—ITS TREATMENT.—Dr. N. Bozeman, (*Trans. Amer. Gynec. Soc.*, 1879), concludes an exhaustive study of this lesion, thus:

(1) A recto-utero-vaginal-fistula, though occurring oftener than is generally supposed, seldom comes under the observation of gynecological surgeons, because the lesion nearly always terminates fatally within a few days or weeks, or before its existence is suspected. (2) Obstetricians should be more careful in making autopsies on cases like the above, to carefully scrutinize the structures named in order to determine accurately the extent of the implications and the relative frequency of the lesion as compared with those involving the anterior wall of the cervix uteri and the bladder. (3) The cause of the lesion is pressure of the child's head above the sacro-sciatic ligament, while it is in one of the occipito-posterior positions, more often the left than the right, and to avoid the lesion early descent of the occipital and ascent of the frontal portions of the head, or change of the latter into one of the occipito-anterior positions must be encouraged or brought about. (4) The lesion, when it does occur and is recognized soon after labor, will always be found to implicate more extensively the mucous membrane of the vagina and cervical canal than that of the rectum, because the pressure of the child's occiput directed from within outwards is greater and more extensive upon the former structure, and consequently more destructive than the pressure of the impinging point of the sacrum directed from without inwards upon the latter. (5) The lesion,

when it does come under the observation of the gynecological surgeon, will be found almost, if not always, complicated in the immediate vicinity with stenosis of the vagina, and it will be partially or completely shut off from view by the latter, the ruling obstacle to a clear diagnosis and the main barrier to successful treatment. (6) In no class of the lesions incident to parturition is more judgment and more discretion of the surgeon required in his estimate of the difficulties and dangers attending its treatment, and from no class of operations, when successful in the wide range of surgical science is there to be seen a clearer proof of true conservatism than in the one under discussion. (7) The avoidance of any form of operation for closing the vagina in treating this or any other injury incident to parturition, is the highest aim of surgical skill and science. (8) In the treatment of the lesion gradual preparation including incisions and dilatation, carried to the extent of overcoming resiliency, or of softening and modifying the accompanying cicatricial obstructions, must be instituted to insure full expansion of the vagina and smooth co-adaptation of the opposing borders of the fistula, and the borders of the fistula at best, when left to themselves will promptly obey the law of recontraction, or displacement as the distending or dilating force is withdrawn, like the ends of a fractured bone left without support and under the play of uncontrolled muscular contraction. (9) In the treatment of the lesion the knee chest position is the one above all others from which the greatest number of advantages is derived as regard relaxation of the abdominal muscles, gravitation forwards of the abdominal and pelvic viscera, natural relationship of the affected parts, direct rays of light and adaptability for the use of instruments. Fixation and anæsthesia of the patient upon a suitably constructed chair or support are essential to a full realization of the advantages named. (10) In the treatment of the lesion intra-vaginal dilatation gradually increased to a point far beyond the limits of vulvo-vaginal dilatation, at which the power of the patient's endurance ceases, is the form *par excellence* to be employed. To accomplish this nothing can take the place of small pieces of coarse sponge compressed in bags of suitable size made of oiled silk. The cylinders of com-

pressed sponge thus formed are to be removed and cleansed, or renewed once a day with the same attention to warm water vaginal douches, and to applications of a sixty-grain solution of nitrate of silver to all excoriated or incised surfaces. (11) In the treatment of the lesion long, narrow, dilating, lateral blades, and a short movable perineal elevator are the means from which the greatest limit of transverse vulvo-vaginal dilatation, and the largest amount of light are to be secured with the least obstruction in the field of operation. (12) In the treatment of the lesion the borders of the fistula, when refreshed and drawn together with the proper number of silver wires, require to be held in the same stretched and even relationship as at the instant of ceasing the dilation, and commencing the operation. To accomplish this and guard against subsequent recontraction of the vaginal tract at the seat of the old stenosis, the great obstacle to primary and permanent union between the edges of the fistula, it is necessary to supplement the sutures with a vaginal splint of sheet lead of suitable shape and length, having a row of holes along its centre equal in number to that of the sutures. This splint on receiving the doubled ends of the several sutures through its row of holes is to be slid down upon them to its place over the coapted edges of the fistula and then secured; the latter being done by the compression of a perforated shot upon each of the doubled sutures in succession, while under the required traction.

THOMAS ON INTRA-UTERINE MEDICATION.—Dr. T. G. Thomas (*Trans. Amer. Gynec. Society*, 1879) states that, as a rule, intra-uterine medication carried above the os internum is often hazardous, generally disappointing in its results, and in many cases very useless. When uterine catarrh exists above the internal os there is, as a rule, a special cause for it. In other words, while admitting the existence of idiopathic endometritis, he holds that, as a general rule, corporeal endometritis is secondary to something else. Very commonly it is due to uterine congestion induced by verona, by flexure, and less commonly, but yet not rarely, by a slight degree of uterine descent, the uterus dragging upon the broad ligaments and keeping up a constant state of engorgement. The treatment of such cases

by intra-uterine medication does more harm than good, and hence is an error. The exciting cause must be removed. In another class of cases there is a fungoid development of the mucous membrane lining the fundus uteri. Intra-uterine medication is here an error, because it either fails or is dangerous, while by the curette we have a safe and efficient mode of treatment. In another class of cases intra-uterine medication is an error, because it utterly fails, while the operation for relieving a lacerated cervix succeeds. In still another class of cases the treatment must be largely constitutional.

TUMORS OF MAMMARY GLAND — THEIR DIAGNOSIS.—Dr. S. W. Gross (*N. Y. Med. Jour.*, June, 1880,) gives as the result of his studies the following: (1) A uniformly hard, perfectly movable, nodular, slowly growing tumor, particularly if it be situated at the upper and outer part of the gland of impubesc subjects and of married women toward the twenty-third year, and be free from ulceration, alterations in the skin, veins, nipple and lymphatic glands, is a solid fibroma, and the diagnosis is strengthened by the presence of several growths in one or both breasts. (2) A hard, lobulated, peripheral tumor, or one which, after having remained stationary or progressed slowly for several years, suddenly and rapidly acquires a large volume, assumes an unequal consistence, being firm at some points and soft or fluctuating at others, occurring towards the thirty-sixth year, unaccompanied by lymphatic involvement, but attended, possibly, with discoloration of the skin, deformity of the nipple and limited superficial adhesions, and it may be with dilatation of the veins, discharge from the nipple and ulceration and fungous protrusion, is a cystic fibroma. (3) A firm, rapidly growing, peripheral tumor, appearing in prolific married females at about the thirty-seventh year, with, possibly, discoloration and adhesion of the skin and ulceration, but without deformity of or discharge from the nipple or enlargement of the glands, is a solid sarcoma. A tumor possessing these attributes and occurring toward the thirty-second year is probably a firm spindle-celled sarcoma, while one developing at about the forty-second year is more apt to be a firm round-celled sarcoma. (4) A lobulated tumor, particularly if it involves the greater part of the mamma, of quick growth

from the commencement or progressing rapidly after having increased comparatively slowly for some time, of large size, of varying or unequal consistence, occurring toward the thirty-third year in prolific married subjects, and attended with discoloration of the skin, ulceration, enlargement of the veins and, possibly, with discharge from the nipple and limited adhesions, or it may be with deformity of the nipple and glandular enlargement, is a cystic sarcoma. A very rapidly progressing tumor, of soft, apparently fluctuating consistence with stretched skin and enlarged veins, appearing in young girls before puberty and in young married women, is a medullary sarcoma, which may be solid, or cystic, and is, as a rule, composed of small spindle cells. (5) A solitary, rapidly and continuously growing, although not very bulky, rather firm, or possibly soft tumor, occurring at about the forty-fifth year, with limited discoloration of the skin, but not fixed to the chest, and attended, possibly, with deformity of the nipple, superficial adhesions, ulceration, dilatation of the veins and enlargement of the axillary glands, is a solid myxoma. (6) Cystic myxoma possesses the same consistence and growing attributes as the former variety, but it develops at about the forty-eighth year and is liable to be attended with discoloration, adhesion and ulceration of the skin. The veins, nipple and glands, however, are normal. (7) A hard, heavy, nodular, solitary, very slowly and equably increasing tumor, especially if it develops in the immediate vicinity of the nipple of a married woman, toward the thirty-fifth year and is accompanied by adhesion and discoloration of the skin and ulceration, and, possibly, by deformity of the nipple and enlargement of the glands, but is free from fixation to the chest and dilatation of the veins, and is preceded by a discharge from the nipple, is a cystic adenoma. A solid adenoma cannot be distinguished from a solid fibroma. (8) A densely hard, inelastic, irregular, solitary, slowly growing tumor, occurring in prolific married females towards the forty-eighth year, inseparably connected with the mamma, accompanied by induration and enlargement of the associated lymphatic glands, retraction of the nipple, infiltration of and, possibly, nodules in the skin, ulceration and fixation to the chest and it may be by a discharge from the nipple, is

a scirrhus carcinoma; and the diagnosis is strengthened if there be a history of heredity, if the tumor was preceded by psoriasis or eczema of the nipple, or if developed from an induration left by puerperal mastitis. (9) A soft, lobulated, voluminous, solitary and rapidly increasing tumor, occurring in the same class of women, at about the fiftieth year and attended with infection of the glands and skin, retraction of the nipple, fixation to the chest and, possibly, extension to the opposite breast, but without discharge from the nipple or marked tendency to prominence of the veins or ulceration, is a medullary or encephaloid carcinoma. (10) A hard, very slowly growing, small, solitary tumor, occurring towards the forty-fifth year, with adhesion to the skin and it may be nodules in that structure, prominence of the veins, retraction of the nipple and enlargement of the glands and, possibly, with invasion of the opposite breast, fixation to the chest, ulceration and discharge from the nipple, is a colloid carcinoma. (11) A densely hard, irregular and knotty, contracting and small, solitary tumor, occurring at about the forty-seventh year and attended with retraction of the nipple, infection of the glands and skin and, possibly, distinct tubers in the latter structure, ulceration and immobility on the chest, is an atrophying scirrhus. (12) A slowly increasing, solitary, nodular or slightly lobulated tumor, occurring after the menopause, covered by thinned and discolored skin, fluctuating and, probably, discharging by the nipple, but without enlargement of the veins or glands and without fixation to the chest, is an involution cyst. (13) A solitary, smooth, firm and elastic or, possibly, fluctuating tumor, occurring in the vicinity of the nipple, of slow growth and unattended with alterations in the veins, nipple, skin or glands, if it inflames, is an evolution cyst. (14) A solitary, slowly growing, not bulky, fluctuating or semi-solid tumor, occurring near the nipple of lactating women and unattended with changes in the coverings of the mamma or in the glands, is a lacteal cyst. (15) A slowly growing, small, smooth, round, firm and elastic or fluctuating tumor, occurring between the ages of twenty and thirty years, seated at the upper and outer border of the breast and not near the mamilla, with a disposition to ulcerate, but without other changes in the skin, veins or glands, is an hydatid cyst.

VERSIONS AND FLEXIONS OF THE UTERUS—THE RELATIONS OF THEIR SYMPTOMS.—Dr. Ely Van de Warker (*Trans. Am. Gynec. Society*, 1879) says: (1) There are no specific symptoms of versions or flexions of the uterus. (2) Versions and flexions previous to the advent of uterine function may be unattended by symptoms; from the nature of these developmental errors symptoms may be wanting after menstruation, but they deserve, nevertheless, to be regarded as pathological. (3) Acquired forms of versions and flexions, are as a rule, attended by symptoms, but owing to certain general and local conditions, namely, lessened systemic reaction and local adjustment of the tissue, components of the uterus to the changed relations of the version or flexion, these symptoms may disappear, the organic error remaining the same. (4) On the cessation of menstruation and the occurrence of senile atrophy, symptoms of the uterine displacements subside, the displacements remaining. The reverse of this is exceptional. (5) There being no specific symptoms of versions and flexions, the symptoms defining these errors of the uterus depend in common with many other uterine diseases on disturbance of function of the uterus, of near parts, of the system generally, and these disturbances may exist without symptoms of inflammation; while these inflammatory evidences may exist with those of displacement, either as co-results of common factors or as pathogenetic of the uterine malposition, and that when these displacements and inflammations co-exist, the flexion symptoms may be due to mechanical causes and are clinically distinct.

Ophthalmology.

WEEKER'S "SIMPLE PERIPHERAL FLAP" CATARACT OPERATION.—This operation is designed for simple, uncomplicated cases and is done as follows (*Am. Jour. Medical Science*): An assistant holds the upper lid up, or a small speculum is used, which the assistant holds away from the globe so as to avoid any pressure. The ball is then held by means of fixation forceps and the cornea detached at its junction with the sclera for its lower third, forming a flap about 4 mm. in height. The knife used is one about double the width of Gräfe's. After the counter-puncture is made the fixation forceps

are removed and the section completed without the formation of a conjunctival flap. The speculum is then removed and the lids covered with a cold sponge and the patient allowed to rest a moment. The capsule is then opened by means of an ordinary cystitome. The lens is then expelled by pressure by means of the lid and a spatula at the border of the wound. The eye is then cleared of corticalis, no regard being paid to the prolapsus of the iris. If the iris does not re-enter the anterior chamber, it is gently pushed in by means of a little spatula. Two or three drops of eserine are then instilled, and after waiting for five minutes for the action of the myotic, the eye is bandaged if the pupil is found to be contracted and there is no enclavement of the iris. The bandage is removed at the end of two hours for a re-instillation of eserine, if the pupil is not found well-contracted at the second examination.

ATROPIA AND DUBOISIA—THEIR RELATIVE VALUE IN OPHTHALMIC PRACTICE.—Dr. S. D. Risley (*Am. Jour. Med. Science*, April, 1880), from his observation of the action of atropia and duboisia, gives the following conclusions: (1) In solutions not stronger than two grains to the ounce, duboisia sulphate is free from danger. (2) The two-grain solution of duboisia sulphate more rapidly paralyzes the ciliary muscle than a four-grain solution of atropia sulphate. (3) The duration of its effect is less than half that of atropia sulphate. (4) The preparations now in the market are more liable to irritate the conjunctiva than neutral solutions of the sulphate of atropia. (5) In treatment of inflammations of the eye duboisia is quite as useful as atropia, and may, therefore, be used as a substitute.

SYPHILITIC TUMORS OF THE EYE.—Galezowski (*Recueil d'Oph. Archiv. Der.*) concludes a study of this subject thus: (1) Syphilitic tumors of the orbit are developed generally in a rapid manner, in several days or in one or two weeks. (2) They are always preceded by circum-orbital pain, very violent for several days, and by vomiting. (3) Paralysis of most or all the motor nerves of the eye is an early symptom of the affection; the optic nerve is rarely at the outset affected, but at a later period a monocular atrophy of the papilla may ensue. (4) Syphilitic periostosis and exostosis are rarely

limited to a single point of the orbital cavity, but occur together with exostosis of the bones of the cranium, the legs and arms. (5) The simultaneous occurrence with the exophthalmus of an iritis, retinitis, or choroditis, points strongly to a syphilitic affection. (6) Tumors of the orbit occur as often in cases of hereditary as of acquired syphilis.

CAUTION IN REGARD TO CHRYSOPHANIC ACID.—Physicians prescribing chrysophanic acid (*Boston Journal of Chemistry*) should warn their patients against the accident of introducing it into their eyes through rubbing the eyes with their fingers. Dilatation of the pupil ensues, accompanied with intense inflammatory itching and burning, causing much pain for the time it lasts though the inflammation soon subsides.

Dermatology.

ACNE ROSACEA COUPEROSE.—(*Lyon Méd.*, March 14, 1880.) M. Hillairet, physician to St. Louis Hospital, Paris, recommends the following treatment for this troublesome affection. He bases it upon the idea that the capillaries are in a state of passive dilatation, of congestion similar to that produced by section of the cervical ganglion, and accordingly he endeavors to overcome the capillary stasis and inertia of the skin by a stimulating treatment. Under the influence of the remedies employed the circulation is quickened and the chronic congestion progressively disappears. To determine at first the excitability of the skin, steam douches or lotions of very hot water may be employed. The lotion is immediately followed by the inunction of the following ointment, which is left in place for half an hour only: *R* Axungiæ, 3j; zinci ox., gr. xxx—xliv. *M.* This ointment has no healing properties, as far as the rosacea is concerned, but is simply used upon persons possessed of very fine skin, to prevent the chapping and cracking which would result from the use of the following: *R* Aquæ destill., 3viii; sulph. sublim., 3j; alcohol camph., 3ii—3iv. *M.* On retiring the cheeks or affected parts are slightly moistened with the above. The camphorated alcohol, which is sometimes very irritating, may be replaced by camphorated sulphuric ether in the same proportions; the mixture, however, is not so homogeneous in the latter case. In the beginning this treatment sometimes produces great irritation, accompanied by burning, but generally by the third day

these disappear. Whilst applying the lotion the eyelids must be closed. The sulphur is deposited upon the skin, in a fine powder, mixed with small crystals of camphor, and remains till morning. The following days same treatment, hot lotions in the morning, oxide of zinc ointment immediately afterwards; sulphur lotion at night. The efficacy of the treatment is soon perceptible; from the third to the fourth day the papules decrease, resolution of the pustules is apparent, and the skin grows paler. After the sixth day portions of the skin present the normal color. After six days of continued treatment the latter should be stopped for two days and then again continued. To give definite results this treatment should be continued during several weeks, for two or two and a half months, even after all traces of the disease have disappeared certain precautions must be taken. The face should be bathed in hot water in the morning and in the evening, a tepid lotion of water to which a teaspoonful of sulphuric ether per dose has been added, should be applied. Salted and spiced foods must be laid aside, as well as pork and all forms of liquors. The patient must avoid prolonged exposure to winds and sea-air, and refrain from passing suddenly from hot rooms to the cold air.

DIAGNOSIS OF RINGWORM OF THE HEAD.—(*Am. Jour. Micro.*, April, 1880), Alder Smith, M. B., London, calls attention to the fact that very few medical men are aware how incurable some cases of ringworm are; the majority consider a case well when it is in a decidedly chronic state. Most practitioners imagine that a ringworm is cured, when the hair is growing freely and firmly again on the affected part. This is a great mistake, as some of the most chronic cases are those in which the hair has grown again, but, on close inspection with a lens, some scurfiness and many broken hairs or stumps will be seen scattered among the new hairs on the patches. He calls attention especially to a variety, which he calls "disseminated ringworm"—one rarely diagnosed and the most chronic and difficult to cure. The hair grows freely and firmly all over the head; there are no patches to be seen now, although probably, they have existed at an earlier stage of the disease; the skin appears generally healthy and, perhaps almost free from scurf, but numerous isolated stumps, or groups of

stumps, are seen in every direction, often scattered all over the scalp. This variety is almost always overlooked, and can only be detected by very careful examination. The stumps in old chronic cases are very brittle and almost always break on attempted epilation, showing, after soaking some little time in liq. potassæ, under the microscope, a most extensive implication with fungus, even down to the root of the hair. Rows upon rows of conidia, like strings of beads, are seen splitting the substance of the hair, and causing it to appear almost double the ordinary size. Where the disease has continued for a year or longer, the whole thickness of the hair seems to be filled with these rows of conidia. Cases like this have certainly existed for many months, or, more likely, for a year or two, and may have given the disease to many other members of a family, while all the time they have been overlooked or thought to be well.

At an early stage of the disease, there may be only a very small scurfy spot or two, containing hairs more brittle than usual. Local scurfiness, without stumps, does not necessarily imply ringworm; but such spots, especially in light haired children, or if the disease exists in another part of the head, are very suspicious, and must be carefully examined with a lens and the scurf placed under the microscope. Often a single stump will be discovered. General scurfiness or seborrhœa must not be mistaken for ringworm. At other times, actual stumps are not seen, but shortened, irregular, twisted-looking hairs, sometimes lying quite flat on the scalp and of a lighter color, which, on attempted epilation, break off and show the usual fungus. Chronic ringworm may also occur in the form of pustular spots, with a stump in the centre. This appears to be nature's effort to get rid of the stump, and can be successfully imitated by treatment. A very chronic form is also observed where there are one or more large irregular patches, often extending nearly all over the scalp. The surface is very scurfy, and very many of the long hairs remain, together with numerous stumps. This variety is sometimes mistaken for seborrhœa or eczema, but can be always diagnosed by the stumps. Cases are even found where the entire scalp is affected.

In old chronic cases the diseased stumps undergo some fatty degeneration, and thus

many small oil-globules are seen in and about the stumps, as well as conidia. Again, small oil-globules on a normal hair, or atrophied stump must not be mistaken for conidia. The regular, equal sized and bead-like arrangement of the bright and circular conidia, with their double-contoured outline and unclear contents on or in the substance of the hair, cannot be mistaken when once seen. Ether will also distinguish oil globules from conidia by dissolving the former; besides, the fractured faggot-like appearance of the broken end of the stump is most characteristic.

GENERAL EXFOLIATIVE DERMATITIS.—Dr. W. A. Jamieson (Edinburgh *Med. Jour.*, April, 1880) in a very able paper reaches the following conclusions: (1) There is a peculiar form of superficial inflammation of the skin, having as its most marked features persistent hyperæmia and cuticular exfoliation, not, unless of long duration, much impairing the general health; distinct from eczema, resembling erysipelas migrans in spreading from its margin, apt to continue long rebellious to treatment, tending to recur, and in some instances ending fatally. (2) An allied, if not identical, condition may be met with in an acute form when it is related with much probability to pemphigus foliaceus. (3) The exfoliation of lamina of cuticle is due (as the desquamation after yellow fever, erythema, etc.) to slight, and in this case continuous exudation into the upper layers of the cuticle. (4) For its causation we must look deeper than the skin, some altered condition of the spinal and sympathetic nervous systems being in all likelihood the main factor in producing it. (5) It is not favorably influenced by arsenic, as its dry and scaly character might lead us to expect, possibly because the deepest of the columnar cells of the rete are not specially affected, and it is by limiting the over activity of these cells that arsenic acts. (6) The best means of controlling it at present available are, at least in its chronic forms: (a) To protect and soothe the skin by bland, oily applications, for which the petroleum derivatives are perhaps best suited. (b) To unload the congested vessels by free diuresis, by alkalies and especially by digitalis. (c) When this has been affected, to administer full doses of tincture of per-chloride of iron, or small doses of carbolic acid, both of which diminish cutaneous hyperæmia.

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Original Communications.

Writer's Cramp.

BY DR. JAS. T. WHITTAKER,

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WRITER'S cramp is an expression of exhaustion of nerve centres. It is the result of excessive use of the same muscles in the same way. A familiar experiment of the physiologist is to stretch an isolated muscle with ends at each end across a table, and apply to each end of the muscle an interrupted current of electricity. The contractions which supervene, at first marked, become feebler and feebler to finally cease altogether. But, if the muscle be kept warm and moist, that is viable, contractility is renewed by rest for a time, when the experiment may be again repeated. It is noticed, however, that at each successive trial the muscle responds more feebly and loses tone quicker. Finally, after however long rest, there is no response at all. Precisely the same phenomena are demonstrable when the electricity is applied to the nerve supplying the muscle, and precisely the same phenomena are to be observed in the living body as the result of excessive fatigue. In the living body, however, there is an added element of blood poisoning from the accumulated products of muscle waste, and, as a consequence, there is cramp and pain, as the results of exhaustion and waste.

Such a condition is, of course, not confined to any one muscle or group of muscles, but will affect any muscle or nerve under the same conditions. So the physician is called upon to treat cramp and paralysis in others than writers. Typical cases are enumerated amongst piano players. Thus Renter has reported the case of a celebrated composer in whom the right middle finger had refused service for ten years by reason of its spas-

modic extension, whenever he sat down to play. Violinists also are, as might be expected, not exempt. Berger mentions such a case in the person of a hypochondriac violinist, who was wont to be seized with pain in the left shoulder and a spasmodic cramp of the left hand, which was only obviated by holding the instrument in an unusual way. Tailors and fine-sewing women are sometimes attacked with the "stitch cramp." Duchenne saw one typical case attended with a spasmodic rotation of the arm inwards. Onimus has lately reported cases of cramp among telegraphers, and Hamilton, in his work on nervous diseases, mentions the letters most difficult of record in the cases. Cigarmakers, cowmilkers, watchmakers and pugilists have all been unfitted for their vocations by like conditions.

Nor does the affection confine itself to the upper extremities and trunk. Men who have had to tread mills have been seized in the sole of the feet. Scissors-grinders, treadle operators and sewing-machine workers are affected in the legs. The danseuse on the tip-toe is not infrequently affected in the muscles supplied by the tibial nerve. In short, another name for the condition, a better name, is that proposed by Benedikt, viz., *Beschäftigungs Neurose*, occupation, avocation, or professional neurosis. Because the muscles of the hand are most used in the same way, the avocation neurosis is most frequently met in the form of writer's cramp, the *schreiber's krampf* of the Germans, and the *crampe des écrivains* of the French. Graphesiasm and cheirespasm are sufficiently expressive synonyms, though with all these names fault might be found, for often there is no cramp or spasmodic contraction at all.

Attention was first called to this affection by the distinguished English physician, Charles Beel, who noticed, he says, loss of the necessary combination of movements to

effect writing or movements of such irregular character that the letters run zigzag, while the power to move the arm powerfully remains.

The singular fact came to be noticed in a short time that writer's cramp came under observation only after the use of steel pens (1830), and it was not long before it was believed that the kind of pen used was a prominent factor in the etiology of the disease. But it was seen, on the other hand, that typical cases did occur when only quill pens were used, and moreover the substitution of quills did not relieve the condition in well-developed cases.

That the male sex is most disposed to the disease follows as a matter of course, and upon this point there is general agreement. The point of difference concerns the age affected. Hammond claims never to have seen a case under forty. But with most observers the very reverse is true, that is the cases are rare after forty. Thus Berger noticed the beginning of his cases from 20-30, 24 times; from 30-40, 12 times; from 40-50, 16 times; from 50-60, 7 times, from 60-70, 5 times.

A most important point in the etiology of the affection is the neuropathic temperament. Berger can not understand how Beard could claim that writer's cramp mostly affects individuals of robust constitution. He always noticed that individuals of irritable, sensitive temperament, with multiform hypochondriac or other so-called functional neuroses furnish the largest contingent of cases. Rogger reports a case of a man, who suffered formerly with paralysis of the lower extremities and strangury; Langenbeck, one with simultaneous spasm of the larynx and pharynx; Brück, one with neuralgia of the solar plexus; Kopp, one with headache and manifold neuralgias; and of Fritz's twenty-five cases, seven were affected with other neuroses, facial spasm, strabismus, stuttering, chorea, etc. Berger, who cites these cases, says of his own cases, in one instance a paternal uncle suffered also with writer's cramp; in five other cases the family history showed the occurrence of paralysis agitans, chorea, epilepsy (twice), and psychosis. The patients themselves showed other nervous disturbances in 26 cases, irritability, pressure about the head, vertigo, palpitation, weariness of the lower extremities or in the sexual sphere, nervous dyspepsia, etc. Two

of the cases were epileptic; one of them, a secretary for 27 years, suffered also with hemicrania from childhood, and later was a victim to mania, in an attack of which he pitched himself from a window and killed himself.

There is, however, no doubt that cases occur entirely independent of other neuroses. But the influence of alcoholism and sexual excesses, especially onanism, must not be overlooked.

Independently, however, also of these complications does the condition occur. The pre-eminent etiological factor in all cases is the exhaustion which comes of excess in writing. The condition is most apt to supervene in the mechanical writers, especially in those who take pains to write well and attend most to the form, and least to the meaning of the word. Authors seldom suffer from writer's cramp, at least in aggravated form. Clerks, secretaries, amanuenses, book-keepers, these are for the most part the victims of the disease. Beard thinks the immunity of authors is due to the habit of resting while they ponder. But the most prolific authors do not rest from their work. They come to their work for the most part after full contemplation and then often rapidly put it down. In this connexion is a story of Sir Walter Scott, one of the most prolific writers of modern times. The last two volumes of *Waverley* were written, Scott said in a letter to Wm. Merritt, in three weeks, and the manner of their composition is thus depicted by Lockhart in his life of Scott, p. 171-3:

"After carousing here for an hour or more," (the story is told by one of several young barristers assembled in a room opposite Scott's apartments), "I observed that a shade had come over the aspect of my friend, who happened to be placed immediately opposite to myself, and said something that intimated a fear of his being unwell. 'No,' said he, 'I shall be well enough presently, if you will only let me sit where you are, and take my chair; for there is a con-founded hand in sight of me here, which has often bothered me before, and now it won't let me fill my glass with a good will.' I rose to change places with him accordingly, and he pointed out to me this hand, which, like the writing on Belshazzar's wall, disturbed his hour of hilarity. 'Since we sat down,' he said, 'I have been watching it—it fascinates my eye—it never stops—page after page is finished, and thrown on that heap of mss., and still it goes on unwearied; and so it will be till candles are brought in, and

God knows how long after that. It is the same every night—I can't stand a sight of it when I am not at my books.' 'Some stupid, dogged engrossing clerk, probably,' exclaimed myself, 'or some other giddy youth in our society.' 'No boys,' said our host; 'I well know what hand it is—'tis Walter Scott's.'"

Whether Scott ever had writer's cramp or not is a question of doubt. He was unable towards the last to hold the pen in his hand, and relinquished it after repeated effort with an expression of great distress, but Scott had previously had a stroke of paralysis, and it is not improbable that the feebleness of grasp was due to cerebral lesion.

Trauma plays a very insignificant rôle in the production of writer's cramp. Of ten cases which have come under my own observation, trauma was alleged as a cause in only one. But this individual, a young clerk, clearly suffered a chronic periostitis on the inner aspect of the left index finger, which incapacitated him from holding a pen (except between the middle and ring fingers) and hence this case does not, strictly speaking, fall under the category of writer's cramp.

Moreover, strictly speaking, cramp, as has been said already, does not constitute the sole, or even a necessary factor in the symptomatology of the disease. For many cases have no cramp at all, and the muscular fatigue evidences itself by paralysis. Cramp, tremor, paralysis, these are the three expressions of the disease. But cramp is the most frequent symptom of the disease. Thus, in the 64 cases recorded by Berger, there were 24 purely spastic, 10 purely paralytic, and 8 purely tremulous. The remaining 22 cases were mixed, but cramp was present in all in 34 cases.

Every one has experienced this cramp in slight degree, after excesses in writing. Rest restores tone to the overworked muscles and the cramp ceases. But work, after too short an interval is followed sooner and sooner by cramp, more and more profound, until at last the cramp extends up the arm to the forearm, neck and even side of the face. My colleague, Dr. Ransohoff, referred to me a few weeks ago a case in which the spasm of the arm, neck and face was epileptiform. The individual, a clerk in the auditor's office, had his head drawn down upon his shoulder and his hand twisted backwards during the cramp. The pain he experienced at this time

would cause him to cry out. In fact, enforced work extends the disease to induce organic lesions in the cord, whereas a case of writer's cramp alone has no lesion, and, consequently, no apparent pathology.

It is easy to discover the kind or variety of cramp with which the patient is afflicted. It is only necessary to put a pen in his hand and direct him to write. The spastic variety will first make zigzag lines, much after the manner, as Dieffenbach has put it, of a man writing in a wagon jolting over a rough road. The tremulous variety is the chirography of extreme age, and the paralytic is a letter or two only.

So the diagnosis of the disease is easy, so far as penmen are concerned.

The prognosis is bad. A few cases recover entirely, but such recovery is the exception and not the rule. Individuals unable to rest the hand seldom recover entirely, but return to the physician again and again, for the rest of their days. Palpitation of the heart, precordial anxiety, a condition bordering on epilepsy, is the history of the unfortunate individuals who must work on.

The treatment is rest. First, last, always, rest. Substitution of the left hand only changes the disease ultimately to that side. The various mechanical devices of support have all proven futile, as has also all general treatment, by nervines and sedatives, strychnine, atropia, etc.

Aside from rest, which is almost the *sine qua non*, galvanization is the treatment of writer's cramp. Even Duchenne was forced to admit that Faradization was of avail only in the paralytic and anæsthetic forms of the disease. The galvanization must be gentle, and the sessions brief. Galvanization, local hydrotherapy, manual gymnastics, massage, these are the remedial agents of most efficacy.

Tenotomy, from which so much was hoped, has proven useless, but nerve stretching, from which so much good has been accomplished in like conditions elsewhere, has not been tried as yet in the relief of writer's cramp.

Inasmuch as the disease is induced by the avocation, the only real rescue for the patient is to change it.

The best way to clean a sponge is to put a teaspoonful of liquor sodæ chlorinatæ into half a tumblerful of water and wash well.

A Surgical Clinic.

BY ALFRED C. POST, M. D., LL. D.

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GENTLEMEN:

I HAD a very interesting operation on Thursday, at the Presbyterian Hospital. A young man twenty-six years of age, had a mass of diseased integument traversed by a number of sinuses irregularly furrowed. I do not know what name to give it. He had had it for twenty years, since he was a child six years old; it never had been healed, and although it is possible that a disease of so long standing might be led to heal after a while, by active treatment, as by the application of actual cautery, still he had come a long distance and wanted to be cured speedily, and I performed excision of the mass. I took out a portion of the diseased integument, the disease did not extend deeper than through the superficial fascia, did not extend through the deep fascia of the thigh of the popliteal space. I included the diseased mass in several elliptical incisions, covering a space of about two and a half inches perhaps in breadth, but after making the incisions there was considerable recession of the integument, so that the space was considerably broader, and the subcutaneous tissue was very firm and resisting, so that I could not draw the integument across from one side to the other. I accordingly made a deep incision on each side, including a flap on each side of the vacant space, and divided the cellular tissue so as to relieve the flap from its connection with the subjacent parts, and then was able to bring these flaps together across the middle line, but leaving a vacant space on each side about as large as the original space that was separated. Some gentleman present asked what was the advantage of leaving two vacant spaces instead of one, the two conjoined making a much more extensive space than the one in the middle. The advantage is, that I have a bridge directly across the middle of the popliteal space. If that large space had been left to heal by granulation there would have been danger that the contraction of the granulations would have made it difficult to prevent the leg from being permanently flexed upon the thigh. The contractile power of the tissue formed by granulations as they heal is very great. By having a bridge of integument in the middle and an

open space on each side of the bridge running longitudinally, the contraction of one side would counterbalance that of the other and it would not have a tendency to flex the knee.

Then there is another advantage in having a bridge of integument in the middle line with an open space on each side, rather than one large open space; you double the circumference of the integument from which the newly formed cicatricial skin is to be made to grow. You are all aware of the advantage of skin grafting in producing little islands of newly formed skin in the midst of granulations. Here instead of having a little island you have a large flap, a large amount of integument, which no doubt will adhere there, and that will serve as a basis for growth of new tissue to fill up the spaces, and I doubt little that within the course of a week or ten days, when the space on each side becomes covered with granulations, that by drawing it with adhesive plaster, the space on each side may be reduced and readily fill up. I say there is very great advantage in having the skin on each side heal up, instead of having one somewhat larger one in the middle. I saw the case this morning and it is doing well. There is every prospect that healing will take place, and this skin in the middle will become solidified, and then the process of repair will go on rapidly.

The two cases of very extensive plastic operation that I have under my charge in the Presbyterian Hospital, are both advancing rapidly toward a cure now, and each one will require a supplementary operation. In the case where the upper lip and the ala of the nose were repaired by extensive flaps from the cheeks, the wounds have now almost entirely healed, and all that remains is a little niche in the middle of the lip not of very great extent. I think that by re-dividing the flaps, and perhaps drawing the corner of the lower lip to one side, so as to make it take part in the reconstruction of the upper lip, that that niche may be filled up.

In the case of the large epithelioma of the cheek which was removed and where a flap from the lower part of the cheek and the upper part of the neck was transplanted, the wound has almost healed, and there is rather a superfluity of integument of the

lower part, but above, toward the eye-lid there is a little deficiency. The edge of the lid is drawn down, and it will require a supplementary operation, the lower lid being divided from the cheek and brought up to its proper place, and a flap inserted to fill up the vacancy. The exact manner of performing that I have not yet determined.

This patient, gentlemen, you will remember was here at a former clinic, with a "felon" on the thumb, which had been opened on the side instead of in the median line in front, where there was a very large growth of fungous granulations. I opened it in the median line, and during the last week nitrate of silver has been applied to it several times, and it is now looking much better. You remember, I also made a supplementary incision on the dorsal surface. The inflammation in that region has been entirely relieved, and that incision has healed. These granulations show a disposition to bleed. I applied the nitrate of silver, but it seems hardly powerful enough to keep down the growth of granulations. I am applying nitric acid now.

You understand, gentlemen, that the healing of a sore where there is a disposition to exuberant growth of granulations is promoted in two ways, one by the application of escharotics to destroy the superfluous granulations, and the other by firm pressure with adhesive plaster and bandages.

This case requires to be seen every second day, on account of the disposition to growth of granulations, which require the application of escharotics and the renewed application of a plaster bandage.

This patient, Thomas R., thirty-five years of age, had a fall this morning and struck his knuckles against the tie of a railroad, and has produced some injury on the dorsal surface of the hand in the region occupied by the metacarpal bones of the index and middle fingers of the left hand. There is a swelling there. The first thing to be ascertained is, whether the metacarpal bones have been injured or whether it is merely an injury of the soft parts. The swelling alone will not indicate that.

The first thing to ascertain is, whether there is any fracture of the metacarpal bones. I do not perceive any crepitus. The next thing is, to ascertain whether there is any dislocation. There is an appearance of

deformity about the hand which would not seem to be on casual examination, the result of a mere contusion, and yet it is not a very easy matter to determine that. I observe that there is some crepitation here which I did not at first detect. I was examining more toward the middle of the metacarpal bone, but I find on examining close to the joint, that there is undoubtedly a fracture there. The diagnosis of fracture of a bone depends chiefly upon two circumstances, upon three circumstances, I may say; first, deformity; second, abnormal mobility, motion at a place where there should be no motion, false point of motion; and thirdly, crepitus.

Now, where fracture takes place in the middle of the bone, at a distance from the articulation, the existence of a false point of motion is entirely beyond all doubt. If you find in the middle of the thigh or leg motion where motion should not exist, that implies loss of contiguity of bone; the bone is broken. But if you have the articular end of a bone broken, it is a very difficult matter to determine whether the motion which you detect, is at the joint or in the immediate vicinity of the joint. It is difficult to distinguish the false point of motion from the true point of motion. There is always a good deal of room for doubt whether there is a false point of motion in the immediate vicinity of a joint, or whether the motion is in the joint itself.

In regard to crepitus, there is a certain amount of crepitus here, which indubitably indicates fracture. On the other hand there are injuries connected with sprains of the joints and contusions about the joints where you have a certain sort of leathery creaking, something like the creaking of sole leather. That is one difficulty you have to encounter in coming to a direct diagnosis in fracture of the articular extremities of bones.

The pain which is given by an attempt at motion, is also one circumstance, but that occurs in contusions and sprains of joints as well as in fractures.

I think there is true bony crepitus in this case. There is no doubt in my mind that there is fracture there. I think the crepitus is a different kind from the sole leather creaking which is found in injuries of the joint not attended with fracture. Now, it is a very difficult matter to tell whether it is the

end of the metacarpal bone or the end of the phalanx that is broken. It is very close to the joint. Well, it is not a matter of very great practical importance which it is. There is no great amount of displacement. All that you want to do, to allow union to take place and to restore the natural function of the part, is to give it support so as to keep the parts quiet until union shall take place. It will take about five weeks for union to take place and the patient in the meantime, of course, will have to lose the use of the hand. He may be able to do something with it, but he can not use it for ordinary purposes without doing mischief. The splint may be applied only to the middle and index fingers, allowing a little use of the hand, but the middle finger should be kept quiet by being splinted along with the index finger, because it is difficult to restrain the motion of one when the other is in use.

Give him directions for two ounces of the tincture of opium and two drachms of the acetate of lead, both marked for external use. You will get a bottle and a powder, and you will put both in a quart of water and put a rag wetted with it over this bandage, repeating the application when it gets dry, so as to keep away pain. Do not let your hand hang down; support it with a sling.

Before examining this, the next patient, gentlemen, I would speak of a case I was called upon to see day before yesterday. He was an old sailor, over seventy years of age, a large heavy man, who had been suffering from some form of paralysis. While walking with a crutch, he fell on the floor, and evidently injured the left lower extremity in the neighborhood of the hip joint. The limb was very much swollen, very considerably ecchymosed, and there was a very great degree of eversion of the limb, and it required a great deal of effort to overcome it. I measured the limb in comparison with the sound limb, and to my great amazement found that the injured limb was an inch and a quarter longer than the sound one. I could hardly believe the correctness of my measurement, so I measured it again with great care and it yielded the same result; that is, the injured limb was an inch and a quarter longer than the other. Of course I inquired into the past history of the man, and found that he had twice fractured the

sound limb. He was so fleshy that I could not detect the overlapping that had taken place, but the limb had been shortened to such an extent that it overbalanced the shortening occasioned by the recent fracture of the neck of the left femur by a difference of an inch and a quarter. The case was an unusual one, and a person not informed of the previous history would find it exceedingly embarrassing.

Now, what injury would occasion an eversion of the limb with lengthening? There is one injury which would account for that, that is a dislocation of the head of the femur upon the pubis. But there would be a large bony prominence at the anterior part of the groin, formed by the head of the bone, in a very conspicuous position. But there was nothing of that kind; it was evidently an intracapsular fracture of the neck of the femur with a little shortening, I can not tell how much, leaving that limb, nevertheless, an inch and a quarter longer than the other. The case is a rare one, but it is instructive on that account.

Eliza H., aged 62, ten weeks ago had a fall and injured her left hip. She was confined to her bed a week or ten days after the injury. An injury here in a person sixty years of age, or over, or even only fifty years of age, should excite your suspicion. In regard to the effect of age upon the bones, it depends very much upon the constitution and habits of the patient. Some persons retain the strength of their bones until they get up to seventy perhaps, or even more. There is more or less weakening, however, in old age, even in vigorous age. I have known fracture of the neck of the femur to take place from a slight accident in a person not much over fifty years of age. Persons who are active and strong will retain the strength of their bones to a much longer period than those who are feeble and delicate. There are certain dyscrasias, certain constitutional disorders which render the bones more fragile at an early period. These fractures which take place at the neck of the femur, do not usually occur under the age of fifty. They are more common after sixty; more common still after seventy. There are probably more cases between sixty and seventy than there are between seventy and eighty, because more people live to the former age than to the latter, but there are more cases

between the ages of seventy and eighty than between sixty and seventy in proportion to the number of persons living at the respective periods.

Now the question might be asked, where a patient has been confined to bed only a week or ten days after receiving an injury at the hip, and is then able to walk around with a stick, whether there could be a fracture? There are cases of fracture of the neck of the femur where the parts are scarcely at all separated from each other, where the patient can limp around notwithstanding. There is one practical remark to make, gentlemen, on that subject, that in all doubtful cases of injury about the hip joint, give the patient in every instance the benefit of the doubt, and take all the precautions in the treatment of the case that would be required if it were a fracture. Never proceed to handle the limb roughly in a case where it is possible there may be a fracture, but where the evidence is not clear. Some years ago, I had under my care in New York Hospital, a patient who had received an injury about the hip which was not attended by any appreciable shortening of the limb, but there was stiffness and lameness, and eversion of the foot. I gave the patient the benefit of the doubt. I did not feel certain that it was a fracture, but I treated the case as though it were a fracture, kept the patient quiet in bed, giving support to the limb. It was near the close of my term of service, and one of my colleagues came in at the end of the month. He was not satisfied with the imperfect diagnosis; he wanted to know whether it was a fracture or not, so he moved the limb about very freely and there was no doubt after that that there was a fracture. He created mobility between the fractured ends which before had not been separated, in a way to give motion, and without some effort motion could not be made to take place. The fractured ends were, in the first place, in the best condition to unite, and motion should not have been made even though the surgeon had to remain in doubt as to the correctness of the diagnosis. It is better that the surgeon should remain in doubt than that a positive diagnosis be made at the risk of placing the injured part in a much worse condition for repair. In those doubtful cases union will take place in the majority of cases if left alone, either ligamentous union or even osseous union.

On measuring the left limb we find it to be eighty-three centimeters, while that of the right is eighty-four and a half. In the absence of any eversion of the foot as the patient lies upon her back, I do not think the difference in the length of the limbs is sufficient to justify us in making a diagnosis of fracture. In fracture of the neck of the femur, whether within or without the capsule, in the large majority of cases you have eversion of the foot; it is turned outward. There are a few cases in both these kinds of fracture, intra-capsular and extra-capsular, where you have inversion. That is owing to the manner in which the force producing the fracture is applied. The relative position of the fragments is such as to make it turn in, but by making traction upon the limb you overcome the inversion and then you have the normal position of that injury, eversion. You may have inversion in the first instance, but by making traction upon the limb you overcome the inversion and it will fall into eversion. Now the fact that the toes point directly upward would seem to indicate the strong probability that there had not been any fracture. That is corroborated by the fact that the patient is able to walk about with a stick. Now it is possible for a patient with intra-capsular fracture without rupture of the tissue around the neck of the femur to walk with a stick. Being able to walk about with a stick would not alone indicate that there had not been fracture.

Now, you might ask how you would account for the slight shortening if there had been no fracture. Well, you might account for it in two ways. One is, it has been ascertained by extensive observation that it is not at all uncommon to find the two limbs of a person that have never been hurt a little unequal in length. There is a normal difference in the length of the two limbs, it may sometimes be the right, sometimes the left limb that is the longer. But there is a little inequality between the two limbs without injury.

Then another thing, a severe contusion of the head of the femur might give rise to interstitial absorption. If you examine a case of intra-capsular fracture of the femur at the time of the occurrence of the accident and make a careful measurement you will generally find that the limb is shortened, somewhere between a quarter of an inch and an

inch, sometimes not more than a quarter of an inch, sometimes hardly noticeable at all; sometimes an inch. It rarely reaches over an inch. If you examine the case three months afterwards you will find that limb two or three inches, perhaps, shorter than the other. What is that owing to? To interstitial absorption. The injured neck of the femur has become absorbed, and you find the head of the bone resting upon the trochanter. That is a very common occurrence, and it was first pointed out distinctly among surgical writers by Robert Smith, of Dublin, who has written the best work on fractures of the joint published. I would advise you to read his work for it is full of valuable information.

Probably, this slight shortening she has was original, or it may be the result of interstitial absorption. I would not pretend to give an absolute diagnosis as to fracture in this case. I think the probability is opposed to fracture. As it has been ten weeks since the injury was received, it needs no further treatment. The patient should be careful not to fall again or hurt herself in any way. Get some common salt and water, make a strong brine, and give the limb all around above and below the joint a good rubbing with it morning and evening, and then rub it briskly with a dry cloth. I think a little moderate exercise now will do it good, but be careful not to take any violent exercise.

Patrick D., aged 52, three months ago, fell and bruised his hip; he got over the immediate effects of that, but pain has returned. You will very often find, gentlemen, that after a patient has had a contusion which has injured the parts beneath the aponeurosis for example, the deep seated parts, that he will apparently recover in part from the effects of the injury and yet mischief be going on. But sometime after you may find deep seated suppuration following the injury which seemed not to be very severe and where the patient apparently recovered from it for a time.

The man's hips are perfect, you perceive; there is no swelling here; nothing to indicate that there is any suppuration or anything of that kind. The pain which he has is probably neuralgic. It is possible there may have been an injury inflicted upon some of the smaller nerves. Doctor, you may write him

a prescription for *emplastrum belladonnæ*, four by six inches.

Michael —, aged forty, has had pain in the left hip for about fifteen months. He does not know how to account for it; he did not receive any injury that he knows of.

On examining it I observe that when the thigh is brought down on a straight line with the trunk that the spine recedes, we see a bow under the spine. When the thigh is lifted the back comes down to the bed. It is not certain whether there is any motion at the hip joint here or not. That would seem to indicate that there is some trouble about the hip joint. As the patient lies in this position this limb looks considerably longer than the other. You observe that the ankle here is lower down than that of the opposite limb. That is a very deceptive matter however, we can only tell by actual measurement. The left limb here is eighty-five centimeters long; the right one eighty-seven and a half. Then the limb which is apparently the longer is really the shorter by two centimeters and a half. So the relative length of the two limbs is very deceptive, if you judge of it when the patient is lying with the limbs side by side. There is a twist in the pelvis here, and you never can determine with any accuracy which limb is the longer except by measurement.

You find patients very often think you are going to hurt them, and they will complain. If there is disease in the hip here traction made upon the thigh without violence, made slowly and regularly, should give relief. When I first began it, the patient cried out, but now he says it does not hurt him. I have no doubt it was a false impression made upon his mind. He thought I was going to hurt him when I first pulled upon it, but when I made extension it did not really hurt.

When I strike on the heel he refers pain to the knee. That is often done in disease of the hip joint; the patient refers the morbid sensation to the knee when it is perfectly free from disease. Some years ago a surgeon of New York, was requested to see a patient up on the river, who was said to have disease of the knee, but when the surgeon got there he found the knee perfectly well. Pain was referred to it from hip joint disease, and of course amputation at the knee would have given no relief.

You may take a note to Dr. M., who sent you here, saying I find disease of the left hip, and I recommend having a high heel and sole put on the right shoe, and then you can walk with two crutches, allowing the weight of the left limb to make extension. The right limb will rest upon the floor, and the whole weight of the left limb will be supported by crutches. This is the practice of Dr. Hutchinson, of Brooklyn, who has been very successful in the treatment of disease of the hip joint by applying his apparatus to the sound limb, applying a shoe with a high heel and sole on the sound limb so as to take off all weight from the diseased limb and allow the patient to bear his weight on crutches and on the opposite limb. That is more efficient than almost any other means of making extension upon the diseased limb. It enables the patient to go about. He wants two crutches for that purpose to bear the weight of the body on the axillæ and on the high shoe on the sound limb.

This patient has a dusky colored eruption upon the integument of the shoulders, a sort of tubercular eruption. It is of a livid color. The patient denies ever having been exposed to the causes of venereal diseases, has never had any trouble of that kind. There is nothing that is very distinctive about it. I should have been led to suspect that, if he had a syphilitic history, this might be connected with that. But for the present I simply give directions for bicarbonate of soda and rhubarb each two drachms, powdered ipecac fifteen grains, made into a mass and divided into sixty pills, each pill, therefore, containing two grains of the bicarbonate of soda, two grains of rhubarb, and a quarter of a grain of powdered ipecac. Take one pill three times a day; this prescription is known as the Bulkley pill.

Frank W., thirty-three years of age, says that he had gonorrhœa, and three years ago came here to a clinic. He fears he has a stricture, complains of irritation of the urethral canal when he urinates. It is always well, gentlemen, when examining for a stricture not to use an instrument of very small size at the first examination. This instrument is of fair size, and if he have a very small stricture of course it will not pass through, and I will be obliged to use a smaller instrument.

The orifice of the urethra seems to be of fair size, not an extra large one, but not contracted. In olden times a urethra which allowed an instrument of fourteen of the English measurement was considered to be entirely free from stricture. We generally now do not feel satisfied with a urethra much less than eighteen of the English measurement, which corresponds to thirty of the French measure, thirty millimeters in circumference. This instrument passes on into the bladder, but we will try a larger one. I should hardly say this patient has a stricture. If he have one, it is of very large size, and the only way to ascertain that would be to pass a bulbous instrument of a size somewhat larger than this, eighteen of the English standard, corresponding to thirty millimeters in circumference of the French standard. If an instrument of thirty-four or thirty-five millimeters in circumference would pass through the orifice of the urethra and at some point beyond should become partially arrested and then meet with a larger calibre, that would be called a wide stricture. It is well where there is contraction of the urethra, even slight contraction, the contracted portion corresponding to the size of a well formed urethra, if it produces irritation, to overcome it, either by dilatation or by a slight nicking incision. There is a very great distinction to be made in the treatment of strictures, when you speak of internal urethrotomy, between stretching the part and nicking it slightly, or making a free incision. The stretching the part and then slightly nicking it when stretched is not likely to give rise to hemorrhage or any infiltration of urine. On the other hand, when you make a free, deep incision you have both hemorrhage and urinary infiltration. Now, where you find a stricture lets a large instrument pass through it and then contracts again and continues to contract, notwithstanding the passage of the large instrument, it is called a resilient stricture, one which comes back again. In such a case the best treatment is by stretching and slightly nicking the stricture, a modification of internal urethrotomy.

You may write him a prescription for an ounce of the oil of sandal wood, with directions to take eight drops three times a day on a lump of sugar. "Doctor, will it hurt me to drink something?" You are better without it. "I thought I would ask whether

it would do any particular harm." *You are better without it.* Almost all of these forms of urinary irritation are more or less aggravated by alcoholic drinks, even if they are taken within the bounds of what is called temperance or moderation. Non-stimulating drinks are better for the urinary organs than the stimulating drinks.

This child's name is John D., aged two years and five months. He walks lame on the right leg. The most common form of lameness in children is connected with disease of the hip joint, and the best test of hip joint disease is the mobility of the joint. If you find when the patient is lying straight on the back, the two limbs side by side, that the middle of the popliteal space rests on the bed and, at the same time, the lumbar vertebræ rest upon the bed it is a contra-indication of hip joint disease. This child's abdomen is distended with gas or something else, and the back does not lie as closely to the bed as it might otherwise do, but I do not think it abnormal. When I hold the pelvis the thigh moves freely. It does not make him wince or complain at all. But wince or no wince you can not move the thigh on the pelvis well where there is a considerable amount of hip joint disease. Sometimes you will find only apparent motion, the pelvis rising and falling with the motion of the thigh, but in this case I hold the pelvis quiet while the thigh is moved. Then there is no inflammatory disease of the hip in this case.

The next cause in lameness in walking is some trouble in the spinal cord. But that is manifested by a difficulty in making the muscular movements, as dragging the limb, etc. There does not seem to be any trouble of that kind. You observed I took hold of the limb and pushed the head of the femur against the acetabulum. Children will cry when you hurt them, but this child does not cry. If there were hip joint disease I think the amount of irritation from this pushing, flexion and extension would give him pain.

Now, while examining the patient observe him as he lies on his belly. The cleft between the nates is in the median line, and the horizontal cleft between the nates and the thigh does not very much differ on this side from the other. There is a sort of doubling here which does not exist on the other side, but I do not think it an import-

ant difference. I do not think there is any indication of any serious disease. There is perhaps, a little more fullness on the right side, but there is no tenderness. The case will bear watching, but that is all for the present. You may give him a good bathing every day with salt water.

John M., aged twenty-nine, complains of trouble with the left knee. Let me see the healthy knee also. Gentlemen, you never can judge very well how much swelling there is unless you compare the one joint with the other. Now, by comparing the right and left knees with each other, you perceive that there is a very manifest difference in the size of the two limbs, and in the shape. On the right side, which is the sound one, you find the outlines of the patella are very distinct. On the other side the outlines of the patella are indistinct, it loses itself on the sides in the general swelling. Now, I take hold of the patella on the left side and it can be moved from side to side; it moves a little, but not with ease. The other one moves with a little more ease. That may be partly owing, however, to the patient being afraid of getting hurt and making a little muscular resistance.

Now, we will take the measurement of the two knees. The circumference of the right knee is thirty-three and a half centimeters. That of the left thirty-seven, about three and a half centimeters difference—two and a half centimeters being about an inch.

Now, how long has this been swelling? About four years. There seems to be tenderness on pressure on the sides of the joint, especially over the head of the tibia on the inner side, not so much so over the condyle of the femur, and there is swelling on each side of the insertion of the quadriceps extensor into the patella. There is evidently some increased secretion of fluid in the synovial membrane, but the swelling is not mainly caused by that. There is evidently a solid swelling involving the fibrous tissues and, perhaps, the bone. It is very difficult to distinguish by the feel whether there is simply a periosteal swelling, or whether the bone itself is expanded. I am inclined to think there is some expansion of the bone there. If this swelling were caused chiefly by increased secretion of fluid pressing upon the patella it would yield to pressure, and then strike bottom, as it were, like a stone going

through water and striking bottom. There is not much of that here. There is not much fluctuation. The swelling then is only in moderate degree caused by synovial effusion, but there is a solid swelling of the fibrous structures and probably of the bones entering into the structure of the joint. It seems to have been a local affection of the knee rather than a general disease, as in rheumatism where different joints become affected successively.

These expansions of the articular extremities of bones, chronic inflammation of the cancellated structure of the bone, are apt to occur in younger subjects than this. They are very apt to occur about the age of puberty, a little before or a little after that period, but they do sometimes occur in early manhood.

I think it would be well to try the effect of elastic pressure. I think the uniform support of the limb with the elastic bandage will be likely to have a favorable effect in causing the absorption of the deposit there. The effect will be very slow, however, especially on the deposit in the periosteum and bones. As far as the synovial secretion is concerned, that will be absorbed more rapidly.

This patient's name is B. M., aged twenty-five years. Several weeks ago he began to have trouble with his arm, a pain shifting from the elbow joint to the shoulder joint. Does it go from one side of the body to the other? "No, sir." The question I asked then, gentlemen, is an important one. The patient, for several weeks past, has had painful swelling of the left arm, but it does not affect the opposite side of the body, nor the lower extremities of the same side. The probability is, if it were acute or subacute rheumatism, it would affect the joints of both sides of the body. It is not apt to be one-sided. However, this swelling looks somewhat like rheumatism, and it is possible it may be a one-sided attack of that kind. It seems not to have come from an injury. He says he is also suffering from an attack of diarrhoea, and that requires attention in the first instance. You may give him a prescription for three ounces of chalk mixture, one ounce of the camphorated tincture of opium, shake up and take a tablespoonful after each passage, and confine himself to a diet of thickened milk until he feels relieved. It seems

to be, I should judge, a rather obscure rheumatic affection. It is not a very well marked case of rheumatism. I have directed the chalk mixture with opium and a regulated diet to relieve the bowel complaint. Come to our next clinic, and you will then receive further instructions.

How Shall we Prescribe Pepsine?

Thoughts suggested by reading the papers of Dr. E. R. Squibb, published in the proceedings of the Medical Society of the County of Kings for May, 1880.

BY JUDSON BRADLEY, M. D.

Read before the Detroit Academy of Medicine.

IN order to know how to use a drug, we must first know what it is. What then is pepsine, so called? Dr. Squibb has demonstrated beyond cavil that the pepsines of the market and the prescription counters are not true pepsin after all, but only concentrated peptones. "They are," says Dr. Squibb, "the result of the action of the ferment (pepsin) on the tissues of the stomach itself, and are simply in a condition so concentrated as to communicate their activity to other matters which may be in a condition to undergo a similar change."

"But such active peptones may as well be called pepsine as not, so long as they are able to induce the desired fermentation; and the only practical importance of regarding them as peptones is, that if the process of making them be not a process of extraction, but one of true digestion; then it is better not to take the mucous membrane only, but the entire stomach instead, and not to macerate them in the cold but at the temperature proper for digestion—and by carefully studying other conditions favorable to this particular fermentation to obtain the most active and concentrated peptone that is practicable."

Now it seems that we are beginning to get at the bottom of the truth in regard to "pepsine." It is a peptone so concentrated, that within certain limits it will act on certain materials of suitable character, and excite a fermentation in the substance of those materials or foods, and thus increase the quantity of active, fermenting peptone indefinitely, thereby carrying on a real digestive process. Understanding and remembering this, we can reason out a feasible plan for administering "pepsine."

Alcohol arrests the action of pepsin, and if present in any considerable quantity, destroys its digestive power and renders the adminis-

tration of pepsin wholly nugatory. Consequently, pepsine wine and elixirs containing pepsin are not, to say the least, scientific preparations.

Then, again, the alkaline preparations are sometimes prescribed in combination with pepsine. Bismuth, for instance, is often combined with pepsine in prescriptions with apparent benefit. But would not the same benefit be derived from bismuth alone? Alkalies of all descriptions destroy the fermentative power of pepsin, and bismuth is, practically, an alkaline salt, or anti-acid when used medicinally. Consequently, bismuth is incompatible with pepsin, and should not be given in combination with it, unless the object be to destroy the digestive power of the pepsin.

We may, however, prescribe pepsine in a slightly acidulated mixture—it is not worth much in the dry form—and then we shall get some benefit from its exhibition to our patients; provided the drug is a good article to begin with.

Probably the best plan is to use the concentrated pepsine of some well known house—an article that by the digestive test shows a high percentage of digestive power—and having made an acidulated solution, using, preferably, muriatic or lactic acid, order a proper dose to be taken half an hour before meals, and immediately after, a small portion of some albuminous or fibrinous food to be taken, thereby insuring a considerable quantity of active peptone in the stomach to aid digestion when the meal is taken. This plan was originally suggested, I believe, by Dr. Squibb, and so far my experience in following it gives ample proof of the wisdom of the suggestion.

I said that we should use a good article of pepsine. But are we at all likely to get good pepsine? According to some experiments conducted by P. H. Kretschmar, M. D., of Brooklyn, N. Y., to determine the value of different brands of pepsine by the digestive method, as proposed by Dr. H. Hager and endorsed by Prof. E. Scheffer, of Louisville, Ky., there was found a great disparity in the real value of the different brands of pepsine that have been thrust on the market, and advertised as doing such wonderful things in the way of curing dyspepsia and relieving the sickness of pregnancy, etc. Of twenty-one samples examined from twenty different

firms, only one sample was found, that at the end of thirty-six hours had digested the whole amount of egg albumen that had been subjected to the test; the rest ranging from 91 per cent. the next highest, to 15 per cent. the lowest; the sample that digested the whole amount being called a 100 per cent. pepsine. The sample that digested the whole amount was called Scheffer's Concentrated; the 91 per cent. was the English pepsin, known as "Beale's." Both these sell at \$4.00 an ounce, while J. Hawley's Saccharated pepsin, which is graded as a 90 per cent. pepsin, sells at 45 cents per ounce, and is really worth more than eight times as much as Scheffer's if the price is taken into consideration.

There are various reasons why the profession should know *what* drugs are used, but they are in themselves obvious and need not be mentioned to the gentlemen present. There is also a special reason why those who prescribe pepsine should know its real value as a ferment or an artificial digestive, *i. e.*, what will it cost our patients? I claim that we have no moral right to prescribe a costly article if a cheaper one is actually better, simply because the compounder of drugs has the expensive article on his shelf. But we can ascertain what pepsines are worthy of our confidence, and may insist upon those particular brands in prescriptions.

In conclusion, we may say that pepsine to be of any service, should be given by itself in acidulated water: its good effects are limited to certain functional diseases of the stomach, and not all of the so-called pepsines are worthy of confidence.

Diphtheria.

BY DR. J. H. EGAN, PULASKI, TENN.

I WILL not discuss the question as to whether the local lesion produces the constitutional symptoms, or is the effect. This remains *sub judice*. I incline to the belief that the constitutional poisoning is produced by and keeps pace with the formation of the false membrane. However this may be decided, it makes but little difference in the treatment, as in all cases we treat the patient and not the disease. It is the symptoms evidenced in each patient that we are called upon to combat.

In diagnosing the disease, I claim the formation of false membrane as the cardinal

diagnostic mark of diphtheria. If there be no false membrane, there can, in my mind, be no diphtheria. It may be stated in opposition, that there are well marked cases, which have succumbed, and in which no membrane was visible. To this I demur. I feel certain that a sufficiently careful examination had not been made. It may be that there was no membrane on the tonsils or throat, but there must have been on some other part where it had escaped detection.

Many physicians have received great eclat for their treatment and success, who are not entitled to it. Everything is called diphtheria, where the throat is affected, and, ergo, their success has been remarkable. But the cases treated were not diphtheritic, but simple throat affections, which would have recovered without treatment. Dame nature, alone, would have done the work.

At one time, before the writer had stepped on the portals of the University, caustics to burn the throat were largely used. In the advance of rational medicine, this was soon laid to one side, as irrational, illogical and detrimental. If nitrate of silver was used at all, it was directed in weak solutions which would act simply as a mild astringent. Even this is now thrown aside as one of the many relics of barbarism, ignorance and lack of study of nature's cure.

In all tables we find diphtheria laid down under the head of zymotic diseases. If it be so, and until we know better, we are necessitated to acknowledge it, then the remedies which may be termed anti-zymotic, are, par excellence, those which ought to be used. We find as a fact, immediate improvement under their administration, and therefore are compelled to admit the apparent truth of the nosological table.

The most potent of these remedies is "sulphurous acid." In 1867, Dr. Dewar, of Kirkcaldy, Scotland, published a brochure on the use of sulphur in many diseases. The sulphur was burned in a shovel with the effect of liberating sulphurous acid. The room was kept air tight whilst the administration was effected. The most rapid and wonderful cures took place. I have frequently seen a quinzied sore throat cured in twenty-four hours. The medicine became fashionable; preachers, lawyers, tradesmen and physicians alike lauded it. It was prescribed simply as an anti-zymotic. Like all

other specifics it had its day and fell into desuetude. Of late years the remedy has been revived in the United States, but has never obtained the popularity it did in Scotland.

At the time of the publication of Dr. Dewar's paper, and for years thereafter, it was impracticable to procure chemically pure sulphurous acid, and little was known concerning its properties, uses and dose. Of late years this difficulty has been remedied, and at the present time it is extensively used in the treatment of many diverse affections.

My experience in the treatment of diphtheria has been extensive and the results flattering. Where there is excessive constitutional disturbance, high temperature and nervous irritation, I use aconite and belladonna either alternately or together to combat these symptoms. From the commencement of the illness I exhibit whisky and nutriment, per orem, so long as the patient will take them. Should the sufferer refuse to eat, I exhibit brandy and sanguis bovinus exsiccatus, per rectum. It is absolutely essential that the strength be supported. Around the neck I place a thin rind of bacon moistened with turpentine. To combat the zymosis, I prescribe

℞ Acidi Sulphurosi 3 iv
Glycerinæ 5 iv
Aquæ 3 v

M. Sig. A teaspoonful in water every 3 hours.

I alternate with the following :

℞ Potassii Chloratis 3 ss
Glycerinæ 5 iv
Aquæ, ad 3 iv

M. Sig. A teaspoonful every three hours.

The sulphurous acid has a tendency to dissolve the false membrane; and by diluting with water, the mouth and throat are kept clean. No attempt is made to detach the membrane violently. I have found that when this is done, it reforms more rapidly, and there is increased irritation.

To wash the mouth and the anterior and posterior nasal fossa, I use

℞ Acidi Carbolicæ gtt. vi
Aqua Calcis 3 iv.

to be applied either with a Rumbold atomizing tube, or a hard rubber syringe. The application is to be made every hour, or oftener if necessary. The parts are to be kept clean and free from smell. The lime water will dissolve the membrane and it will come away in pieces. Sometimes I use the Codman and

Shurtleff complete steam atomizer, throwing a spray in front of the child, which it will be forced to inspire. The point is cleanliness; this must not be lost sight of, and if strict attention be paid to the minutia, the physician will be rewarded by a large per centage of recoveries and few deaths. In some cases I do not use the chlorate of potash mixture. In all cases I endeavor to prevent the extension of the inflammation by using

R. Vaseline..... 3 ii
 Glycerine 3 ii
 Acid Carbolic..... .gtt. xx.

M. Sig. To be used with atomizer.

My experience is that quinine and tincture chloride of iron is inferior to the exhibition of nutriment either per orem or rectum. It is of no use to me in averting blood poisoning, as I feel I would be derelict in my duty if I failed to keep the parts clean.

The disease is not now as virulent as it was fifty years ago. It seems that in some way the poison becomes modified in passing from person to person. This can be observed in every epidemic; the mortality is greater at the beginning, and gradually becomes less and less, until it ceases altogether.

PULASKI, Giles Co., Tenn.

Insanity.

"*Audi alteram partem.*"

BY DR. T. R. BUCKHAM, FLINT, MICH.

WHILE reading the article of Dr. Egan in the last issue of your excellent journal, I was reminded of the old proverb at the head of this paper. To many of the recommendations and suggestions, as to the care of the insane, I cordially assent: but to the sweeping statement, the very large conclusion, deduced from the very small generally acknowledged premises in his first proposition "lunatics are better treated at home, by an intelligent physician, than at an asylum," I beg leave to enter my unqualified dissent. If that proposition is true, then asylums ought to be abolished as *costly failures*. It is quite true that "less than a hundred years ago, insane persons were treated worse than criminals," but what has that to do with the intelligent discussion of the subject of public asylums for the insane of the present day? That kind of treatment is now universally discarded. The constitution of the State of Michigan declares "that institutions for the

shall always be fostered and supported." Mark the language: "*for the benefit* of those inhabitants who are insane," not for their punishment as criminals. The statute law of the State also provides that insane persons shall be *admitted* (not *committed*) to the State asylums; besides there is no legal examination required for the admission of the insane; the certificate of two physicians being all that is necessary. Instead of the idea of prison, the State evidently intends her asylums to be *homes* where her unfortunate "inhabitants" can have better care, better treatment, and at greatly reduced cost to the wealthy, and at no cost at all to the poor, than could be procured at the average home of the insane individual. And philanthropists are accustomed to point with just pride to the rapid advancement of civilization during the last quarter of a century, as evidenced by the great care the States have taken in providing for the unfortunate of their children, by building and maintaining, at great expense, asylums for the deaf, blind and insane, with no idea of prison attached to any of them. It is unfortunately true, that sometimes the benevolent intention of the State is frustrated by political or personal favoritism, in placing incompetent, and otherwise unsuitable persons in charge of asylums. Yet the people, the power of the State, soon correct abuses when they occur, and compel the removal of unworthy officers. While it is greatly to be deplored, it is not to be wondered at, that in the large number of insane in the State asylums, requiring the services of hundreds of subordinate officers, a heartless wretch is occasionally employed who cruelly treats some insane person, yet these cases cannot be otherwise than rare, from the care States evince in the oversight of their charities through their boards of trustees of State charities, visiting committees of the legislature, the official power and duty of the Governor, besides the large number of employes who are constantly watching each other; and with all these safeguards, it will, I think, be conceded, that the inmates of public asylums are much less likely to be abused than they would be in any private institution where no such supervision obtains. Again, were it not for the fostering care of the State, more than half of the insane would not receive anything like proper care or treatment. For instance,

what care would be given to the laboring man, or his wife, with a family of children, were either or both parents to become insane? Or ascending the social scale, take the mechanic, artisan, or small trader, who has a comfortable home, and can earn or make from twenty to twenty-five dollars a week; suppose one member of that family to become insane, requiring a constant personal attendant, medical care, medicines, etc., and assuming that the twenty-five dollars a week were still earned, how long would that family have a comfortable home, or be able to provide even the barest necessities of life? The weekly income would *not pay the attendant and physician*. And be it remembered that considerably less than half the families in this country have an income of \$1,300 a year or \$25 a week; so that practically over one-half of the insane would not be properly cared for, were it not by the aid of public asylums.

Michigan furnishes a home, suitable care, medical attendance, medicines, etc., for about four dollars per week to those that are able to pay that sum, and the same care to those that are indigent, *gratis*. What private institution for the insane has made, or can make any such generous provision for the poor? Besides the want of suitable accommodation and the expense, there are other objections: such as the lack of skilled attendants, the want of proper facilities for the prevention of suicide or homicide—the desirability of breaking up morbid associations—the shock to the nervous system of delicate children in witnessing the maniacal behavior of their parents, etc. I have very often been sent by my patrons to visit their friends in asylums, and thus far I have never seen anything approaching to antagonism between asylum physicians and general practitioners. I believe that the former are in full accord with their brethren in general practice, and are just as desirous of serving the best interests of those in their care as are the physicians of a general hospital the patients in their charge. And on two occasions, when I visited asylums for the purpose of arranging for the admission of an insane patient, I was advised by the superintendent to make further trial of treatment at home before removing my patient to the asylum, and I think very few are taken to any asylum until home remedies have been

exhausted and found unavailing; and general practitioners and families who have had the care and responsibility of attending to an insane person, will appreciate the relief experienced when the burden of care is transferred to the asylum.

Permit me to enquire what Dr. Egan means in his first proposition by the phrase "intelligent physicians." In the general use of the term the "intelligent" is superfluous, supererogatory. *Every person who is a physician, must be intelligent*. I hope he will pardon me if I am incorrect in assuming that he means "one with such a knowledge of the human mind, and of cerebral physiology and pathology, as can be obtained by study;" in other words, a specialist in insanity, or one who has made sufficient special study of insanity (not included in the ordinary medical course), to be able to diagnose correctly, and intelligently prescribe for the diseased condition which caused the insane mental manifestations. If he has made that special study referred to, in what particular is he a safer adviser than would be the superintendent of an asylum for the insane?

Every superintendent of an asylum may be presumed to be a specialist in his department, which can be said of but few general practitioners, for the obvious reason that we in general practice have neither the time nor the opportunity that is afforded to those in the constant practical care of hundreds of insane persons under their supervision; hence I think the ergo, that superintendents of asylums are more skilled specialists in insanity than general practitioners is inevitable, unless on the gratuitous assumption that they have had less preparatory training, have less industry or ability than their brethren in general practice. I may here state that having made considerable investigation on the subject, I am fully convinced that less than five per cent. of general practitioners could with any propriety be called specialists in insanity. Is it not a little remarkable that in his first proposition Dr. Egan ignores specialists or experts in insanity, while in his second proposition he emphasizes his appreciation of experts in gynecology, holding their special knowledge to be a *sine qua non* in some cases of insanity? Does he wish his readers to infer that very much less study is required to constitute

an expert in insanity than is necessary in gynecology? "Consistency thou art a jewel." I am quite prepared to admit that there are cases of cerebral disease or disorder affecting the manifestations of the mind's operations that may be treated judiciously by the general practitioner, as he might treat some diseases of the eye, ear, or genito-urinary organs, but would it not be considered very judicious in any of the above cases, if at all severe in their character, for the general practitioner to call in counsel an eminent specialist, if such could be obtained? Belonging as I do to the general practitioner class, I have no desire to underrate our ability, yet I would not expect one of our class to excel, nor even to equal any eminent specialist in his own department, and, *ceteris paribus*, I think as a rule that insane persons are better treated at an asylum than they are at home. Having already occupied much more space than I intended, I will very briefly notice the remaining propositions.

(2) Treatment of uterine disorders:

Ninety-nine out of every hundred have received such treatment previous to their removal to the asylum. (See Dr. Skene on the subject.)

(3) Persons sane on all subjects but one. I think the majority of our best writers on the subject deny the possibility. The insanity for a time may manifest itself only in one class of delusions, but so-called harmless delusions may become dangerous. Insanity in any form is dangerous. (See Michigan Supreme Court, *Van Deusen vs. Newcomer*.)

(4) Answered in general remarks, excepting that "a certain amount of restraint of personal liberty is necessary for the recovery of the patient and for the protection of society." (See *Van Deusen vs. Newcomer*, *ut ante*.)

(5) Subject to legitimate difference of opinion as to arrangement, I do not see, however, how single rooms, day rooms, dining rooms, etc., could be dispensed with. An open hospital ward would be an impractical arrangement in my opinion.

(6) Consulting and visiting physicians not practical excepting in cities, and even there the real responsibility would rest with the resident staff.

(7) Many patients do labor; all or even a majority of them cannot, but most of them are occupied. Occupation to be of service

as a remedial agent is generally recommended to be recreative not laborious.

(8) With the violent there must be restraint of some kind, which, of course, ought to be used with care and judgment.

(9) It is the opinion of many eminent specialists that padded rooms perpetuate and encourage habits of destruction. Patients denude themselves, sleep upon the floor, cover themselves with excrement, etc.

(10) There are so few specialists in insanity among general practitioners that I think the plan could not be carried into practice to any considerable extent. How many physicians of ability and large practice would be willing to take an insane person into his family, or would incur the expense of providing himself with proper facilities?

A colony similar to Ghul would not be practicable in this country (See *Am. Jour. of Insanity*, July, 1879). Dr. Egan remarks "up to the present time in the United States contributions to the science of mind from medical officers of asylums have been few and unimportant." Technically, that is quite true, as few of the contributions could with strict propriety be called contributions to the science of mind, but they have written on their specialty insanity and allied subjects, and a careful perusal of the writings of Drs. Andrews, Van Deusen, Kitchen, Ford Gray, Earle McDonald, Bell, Ray, Kirkbride, Brigham, Hughes, Kempster, Baudrey, and many others whose names I do not recall at present will, I think, convince even Dr. Egan that these contributions were neither few nor unimportant.

A Positive Sign of Pregnancy During the First Three Months.*

BY J. H. CARSTENS, M. D.,

Lecturer Clinical Medicine, etc., Detroit Medical College.

THE difficulty of diagnosing pregnancy during the earlier months is well known, and a positive and unfailing sign would be of great value. Reading in a late number of the *American Journal of Obstetrics* of a discussion, which took place in the Boston Obstet. Society on this subject, and finding no mention made there, nor in the text books in general use, of a positive sign on which I have always relied, and which has in my experience never failed to enable me to make a diagnosis, it occurred to me to call your attention to this question. I was under

*Read before the Detroit Academy of Medicine, Feb. 24, 1880.

the impression that it was a new, not heretofore described sign, but looking over the literature of obstetrics, I found that it has been mentioned years ago by Jacquemier and Kluege, but it seems to have fallen into oblivion, and is not mentioned in the ordinary text books.

I refer to the color of the mucous membrane of the vagina and cervix uteri. This I have always found of a purplish blue, or rather deep violet hue in pregnant women, and I have depended on this peculiar color in making a diagnosis of pregnancy in the first, second and third month. I say it has never failed, and it is not produced by any pathological condition, the different colors produced by uterine diseases cannot be mistaken for this pathognomonic violet hue. I have often called the attention of students to this sign, and in dispensary practice it has repeatedly occurred that women under my treatment for uterine disease, have not attended for six or eight weeks, and hastily placing them on a table without inquiring about their last menstruation, I introduced a speculum, and was on the point of introducing a probe, or making an application to the uterus, when behold, there was the characteristic color. I desisted from further interference, and in every case which I could keep under observation the women were afterwards delivered at full term, or had a miscarriage.

I have also been prompted to write this paper on account of a case lately under my observation, which puzzled me, and the other physician called, the details of which I shall write up some other time.

The case was very peculiar, a woman under my treatment for endometritis and subinvolution. During the course of the treatment menstruation ceased, she claimed she was pregnant, but as I had applied various remedies to the mucous membrane up to the very fundus of the uterus, and continued to do so for some months, I insisted that she was not pregnant, and that it was impossible for her to be so. This continued for about five months, she claiming one thing and I denying it. Well, this woman had the peculiar violet discoloration, and I often asked myself the question, "Here is a case with the peculiar, and in your opinion, pathognomonic sign of pregnancy, and you say she is not in the family-way, how is this?" The vision of some day writing an article of value

for the *American Journal of Obstetrics* suddenly vanished.

"Here," I said to myself, "is a case with the deep violet hue of the mucous membrane, she has other signs of pregnancy, but she is not pregnant, for you pass your probe readily to the fundus, your sign is not infallible." But it occurred to me that it might be a case of tubal or extra-uterine pregnancy, and I watched the case with great interest. One day I was called in haste, imagine my feelings when arriving at the bedside, I found between the thighs of the woman a five months dead fœtus with the placenta still inside of the uterus. How unsatisfactory the case was otherwise, it, however, has strengthened my now unfailing faith in the sure sign of pregnancy, the violet hue of the mucous membrane of the genital organs.

It has been claimed by some that this color of the mucous membrane is found in various pathological states. I claim that the discoloration in the latter case is different from that found during pregnancy, it is more blue and scarlet, mixed or mottled, nor is the peculiar soft velvety condition of the membrane present. I can simply call it violet, it must be seen, and then will never be forgotten. It is probably caused by engorgement of the veins.

All I ask is that this sign be again looked for and submitted to a rigid investigation, and I am sure the verdict will be that it is the only sure sign we have at present to diagnose pregnancy from the first few weeks up to the fourth month. It has never failed me, I have often staked my reputation on it, but when I failed to heed the warning color I came to grief.

21 Macomb Street.

The Detroit Lancet.

LEARTUS CONNOR, A. M., M. D., EDITOR.

The Claims of Science, for its Own Sake, upon the Medical Profession.

UNQUESTIONABLY competition in the medical profession becomes sharper yearly; the supply of doctors exceeding the demand for them. Thus the struggle for a livelihood becomes more and more intense. Of the causes, or the desirability, or the remedy for this state of things, we have nothing to say here and now. To one obvious effect we desire to direct attention, viz:

the all-absorbing practical business spirit that is engendered in the profession. Large numbers are avowedly, simply business men, pursuing a calling for the dollars and cents alone to be gained thereby. All things are to be weighed or measured by their equivalent in gold. There is no interest in aught that does not have a cash value. This mercenary spirit is crushing out some of the best life in the profession. What shall be the remedy? It does not seem possible to stop the over production of doctors, or the multiplication of medical colleges. Accepting the situation, what measures may be employed that shall tend to neutralize the trade spirit that is gaining such pernicious influence over the profession? Prof. J. W. Mallet, in an address before the Maryland Med. Society, (Trans. for '80), gives the following as among the more important:

(1) "The individual example of those who determine that however engrossing their practice, there shall always be a little time reserved for purely scientific studies, that their eyes shall be lifted up to the methods of work and the results of men of science in all the broad fields that stretch out around the cultivator of medicine, and that in some chosen portion of these fields, open to research, they will themselves have a share in the work so far as circumstances shall permit. (2) The exertion of the powerful influence which may be brought to bear upon properly shaping medical education, for the young men who are continually coming forward to join the profession, and who are to form its future strength, throwing this influence in favor of true scientific training, and in opposition to the mere preparation for a calling in every day life. (3) The upholding, in all professional meetings, the importance and value of pure science in its broadest sense, and cultivating that frank interchange of scientific thought, which, in matters purely medical, has long distinguished and liberalized the profession, that "discussion of ideas" which swells the ranks along with "intellectual education," as the true methods by which the acquisition of clear scientific conceptions is chiefly promoted. (4) The exertion of general influence in a quiet way upon society at large, in favor of genuine science, and the guidance of public opinion toward discrimination between that which is really such, and the spurious pretension which is often pushed forward instead of

it. To a large extent every medical man is looked upon as a special representative of natural science, in many a county circle he is the one such representative, and it is not easy to calculate how wide-spread and valuable may be the results of a desire on his part to promote scientific progress, and a clear comprehension of what such progress means."

There is no doubt that an increased active cultivation of science *for its own sake* would enhance the intellectual force of the profession, and thus increase its influence in the world. We could wish that from this time every member of the profession would in one way or another set about the cultivation of science, for its own sake, in one of the ways alluded to or in others more congenial.

Physicians as Related to Pharmacists.

For the past several years this relation has been freely discussed in both medical and pharmaceutical journals. Too often however, it has been carried on by those smarting under a sense of wrong endured by the opposing profession. Hence crimination has been followed by recrimination, and both together have scarcely advanced the solution of the acknowledged difficulty. C. Lewis Deihl (Sup. to Nat. Board of Health Bulletin), thinks that many of the evils complained of arise from the unsatisfactory relation of the medical to the pharmaceutical profession. "The pharmacist occupies a very peculiar position. Being both a tradesman and a professionalist, he unites in his dual calling dual interests. As a tradesman, it is his sole aim to make money; as a professionalist, it is his aim to guard the interests of the public by supplying pure medicines without regard to cost or trouble. If he succeeds in uniting these diverging interests, then both the public and the pharmacist are the gainer; but if he fails in this, then, one or the other must necessarily suffer. The physician is purely a professionalist. It is his aim, if he deserves that title, to ameliorate and cure disease without regard to the material recompense that may follow; and to this end it is his duty to draw into requisition the best agents that knowledge and science may point out to him. But does the physician always do this? Is he careful to inform himself, so that he may be able to judge the quality of the medicine that may

be furnished on his prescription? Is he not in duty bound to prescribe only such medicines, the characters of which are or may be well established? Is he justified in prescribing "special" remedies, the composition of which is wholly or in part withheld? Is it not his duty to so formulate his prescriptions that it is possible for any practical pharmacist to compound the same from among the recognized drugs, chemicals and preparations that may be found in all well regulated pharmacies. Is it not, also, his duty to encourage the pharmacist to prepare all medicines, the characters of which are such as to make it difficult to establish any variation from the standard that may exist, and however slight such may be? Does he not, by the pernicious practice of prescribing the preparations of specific manufacturers, which practice has increased to such an extent as to be an abuse; bring about the very conditions that are so largely instrumental in introducing inferior medicines, by causing the dispenser of drugs to overstock his shop with preparations that are liable to deterioration; by restricting his field of observation in the preparation of medicines; by tempting him to substitute the preparation of one manufacturer, which is in stock, for that of another which it is difficult or unprofitable to procure; by making him indifferent to the professional duties of his calling, when those of the tradesman are so constantly in requisition and his skill and knowledge count for nothing." Unquestionably both professions are to blame for the present relations between physicians, pharmacists and the people. Human like, each has sought to reap the greatest material harvest for himself, irrespective of the other parties co-working with him in the attaining of the same end, viz: the good of the sick. "Greed of gain," here as elsewhere has been and is the root of vast evils. Meantime every effort put forth to bring the physician and pharmacist to a knowledge of one another, and to a mutual working for the common good of themselves and the people is to be encouraged. If physicians who are honorable, would see to it that they worked only with honorable druggists, a working body could be formed in a community that would give tone to all others. Both could unite in teaching the people a confidence in and respect for these professions such as does not now appear.

The British Medical Council.

From a careful study of its late meeting we are unable to see that the General Medical Council of Great Britain accomplished anything for the advancement of the medical profession. Its chief merit consists in drawing salary. It either lacks power or the needful knowledge, or the disposition requisite to bring some order out of the existing babel. It undertook to settle the question as "to who should test the general education of the medical student." No doubt it is desirable to have the authority deciding this question entirely independent of the teaching bodies. But the plan to restrict it to certain universities certainly would fail of attaining this end, as some of these universities have medical departments attached. In so far as we are able to see, medical educational interests are in a worse shape in Great Britain than in the United States, worse, because changes for the better are more difficult to make in an old country than in a new one. Another illustration to this point is to be seen in the support of the American Medical College Association. The old, long established schools of the east nearly all avoid the association; but the new schools of the west and southwest, unite forces and are moving ahead. We wish it were possible to cause the governing forces of those aristocratic eastern schools to make a tour through the west and south, as we think they might conclude that perhaps there was something of virtue in the western and southwestern schools not unworthy of their respect. We think that a comprehension of the real facts in the case, would induce them to believe that their own interests would be subserved by joining hands in a combined movement for advancement. Apparently, they view western schools in much the same light that British schools view them, as situated in the backwoods without means of instruction, or the capacity and capability of using them. Whether they join the College Association or not, whether they aid or approve it, it seems clear that it will live and steadily pursue its work in rendering medical education more uniform and of a progressively higher scope. The schools that are so constituted as to be able to make the changes desired by the medical profession, are the ones that are likely to appreciate the value of united action

in making such changes. As yet there has never been any united action that promises any permanent existence, other than that now afforded by the American Medical College Association. For this reason if for no other, it seems to us that no school which is honestly in sympathy with its aims can afford to neglect becoming an active member just now.

The Tanner Fast.

For weeks past the papers, secular and others, have been filled with accounts of the rise and progress of Tanner's fast. Now that it is completed, they regale us with the record of his feasting. It is pertinent to inquire how much is proved by the entire occurrence. To individuals this question is answered by the degree of faith they may have in Tanner and his watchers. So loosely were the arrangements made that it is impossible to say beyond a possibility of doubt, that Tanner really abstained from all food so long; as a shadow of doubt rests upon a phenomenon of this sort, its value is small. Further, the observations upon the variations in bodily functions, resulting from so great abstinence, were so imperfect in all respects, that from a scientific stand point the whole affair is worthless. If, as at one time proposed, he had been placed absolutely in the charge of Profs. J. C. Dalton, Austin Flint and J. W. Arnold, we should have been absolutely certain as to the fact of the fast, and the phenomena that it produced in Tanner. It is a pity that such a splendid physiological experiment was permitted to be wasted. As it now stands, the whole affair smacks of the sensational show.

Memoranda.

M. Broca is dead. He is best known as the discoverer of the localization of speech in the posterior third of the left frontal convolution, and as the creator of the science of anthropology.

Buchanan, the Philadelphia "bogus diploma" man, who is said to have suicided by jumping from the ferry boat; but later accounts indicate that this action is bogus, and that he still lives in or about Detroit.

Prof. S. D. Gross has just received the highest honors of Cambridge University, England, as he a few years since received the highest honors of Oxford. Among the en-

tire American medical profession Prof. Gross is pre-eminent for the clouds of honors that have gathered around his brow. Better still, all confess that the honors are worthily conferred.

From statements made in the Chicago *Med. Jour.*, it appears that the standard by which the Illinois State Board of Health grants license to practice, is about equal to the attainments of a first year medical student.

The International Congress of Hygiene will meet at Turin, Sept. 6th, 1880, and close Sept. 12. The king, the ministers, the mayor, the prefect, and all the officials will take part; the minister of foreign affairs invites all foreign governments to send delegates; a reduction of 30 per cent. on the railroad fares is announced. The foregoing facts come from the Mich. State Board of Health.

Thieves are reported among the medical students at the several English medical schools. The last culprit captured was at St. Bartholomew's. How to eliminate this element from medical students remains now as ever a knotty problem.

During the second week in August the American Microscopical Society held its annual meeting in Detroit. It was moderately well attended, the exercises were of much interest and profit. The president's address was very able, and the public exhibition of instruments and objects was well attended, giving satisfaction to all. Officers for the ensuing year are: President.—Prof. J. D. Hyatt, New York; Vice-Presidents—Geo. E. Blackman, M. D., and W. B. Reznor, M. D.; Secretary—Prof. Albert H. Tuttle; Treasurer—Geo. E. Fell; Executive Committee—W. H. Brearley, J. H. Fisher, Prof. Albert H. Chester.

Dumas reports Rousseau as saying of medicine: "It is a noble profession. In it you may choose between real science, ever modest and self-sacrificing, and quackery ever noisy and empty. If you would become a physician, young man, study; if a quack, nothing but impudence and effrontery are necessary."

Menthol, a crystalline solid derived from oil of peppermint, is the name of a new anti-septic and anti-neuralgic agent, lately introduced by Dr. A. B. Macdonald.—*Edinburg Med. Jour.*, Aug. '80.

Dr. B. Joy Jeffries, from an examination of four hundred and sixty-five physicians, found twenty-two color blind. Of these, fourteen were red blind, two green blind, and six incompletely color blind. Of the 17,327 males that he has examined, 724 he found color blind, while of 13,813 females examined, only ten were color blind.

We have received a copy of Leonard's students' dose book and anatomist combined. As the publisher tells us that the dose book has been sold in numbers equal to twenty-five thousand, and the anatomist to equal ten thousand, it is clear that little remains to be said. Its compactness and its convenience are such as to commend it to the masses.

At the office of the Michigan State Board of Health at Lansing, accurate records are kept of the temperature, barometer, rain and wind, also the deaths in the town. Thus during February there were eight deaths, viz: general debility, dropsy, scarlet fever, scarlet fever and diphtheria, cancerous tumor, concussion of brain, old age, and typhoid pneumonia. The average temperature of the month was 31.60°, highest 64°, lowest 3°. Average barometer 28.970, highest 29.650, lowest 28.384. Total rain and melted snow 1.55 inches, total snow fall 0.60 inch. For March the annual death rate in 1,000 was 16.49; for April it was 21.92; for May it was 14.14; for June it was 14.63; for July it was 12.73.

Eulenberg states that ninety per cent. of curvatures of the spine which do not arise from a special disease, are developed during school life.

An effort is being made to collect money in the United States to aid in the erection of a memorial to the memory of the late Claude Bernard. Dr. E. C. Seguin, 41 West Twentieth St., New York City, is the agent authorized by the Paris committee to receive subscriptions. All who desire to aid in honoring in this manner the memory of the great physiologist, will please send their contributions to the above named gentleman.

At Guy's Hospital, London, England, for some months the authority of the nurses has controlled the management of patients. A recent coroner's inquest throws some light upon the effects of such control. "A patient suffering from the early stages of tubercle was for some misdemeanor subjected to the punishment of a bath of one hour's

duration." This was quickly followed by acute disease and death. The nurse has been committed for manslaughter. In this case at least, "the nurse being of greater authority than the doctor" was disastrous. As well commit the conduct of a great ship during a violent storm to a fireman, as a very sick patient to the supreme care of a nurse.

CAUSES OF SICKNESS IN MICHIGAN.—Reports to the State Board of Health, Lansing, (Henry B. Baker, Secretary,) for the week ending July 17, 1880, by 65 observers of diseases in different parts of the State, show causes of sickness as follows:

| DISEASES OBSERVED. | BY OBSERVERS. | |
|--------------------------------|---------------|-----------|
| | No. | Per Cent. |
| Asthma..... | 1 | 2 |
| Brain, Inflammation of..... | 3 | 5 |
| Bowels, Inflammation of..... | 13 | 20 |
| Bronchitis..... | 27 | 42 |
| Cerebro-spinal Meningitis..... | 1 | 2 |
| Cholera Infantum..... | 31 | 48 |
| Cholera Morbus..... | 46 | 71 |
| Colic..... | 1 | 2 |
| Consumption, Pulmonary..... | 42 | 65 |
| Croup, Membranous..... | 0 | 0 |
| Diphtheria..... | 17 | 26 |
| Diarrhœa..... | 57 | 88 |
| Dysentery..... | 25 | 38 |
| Erysipelas..... | 15 | 23 |
| Eyes, Inflammation of..... | 1 | 2 |
| Fever, Intermittent..... | 58 | 89 |
| Fever, Remittent..... | 38 | 58 |
| Fever, Typhoid (Enteric)..... | 7 | 11 |
| Fever, Typho-malarial..... | 13 | 20 |
| Influenza..... | 8 | 12 |
| Liver, Inflammation of..... | 1 | 2 |
| Measles..... | 14 | 22 |
| Neuralgia..... | 35 | 54 |
| Pneumonia..... | 11 | 17 |
| Puerperal Fever..... | 4 | 6 |
| Rheumatism..... | 39 | 60 |
| Scarlatina..... | 6 | 9 |
| Small-pox..... | 0 | 0 |
| Tonsillitis..... | 17 | 26 |
| Whooping-cough..... | 27 | 42 |

By the last column, it will be seen that the most widely distributed disease was intermittent fever, (Ague); next to that, diarrhœa; next to that, cholera morbus; no cases of small-pox; scarlet fever in only nine per cent. of the localities.

Examples of individuals soiling their own nests are unfortunately very frequent. The following is a marked example: Dr. Jas. A. Stewart, (Trans. Maryland Med. Society,) says "In Baltimore, Md., there are about 90,000 houses, each having one or more privy wells upon their premises. About 40,000 of these are dug to the water for the purpose of avoiding the necessity of emptying, some never, others only after many years. Of course the subterranean streams which flow

through these wells and carry off their foul contents, are the same which flow through and supply the drinking water of the pump wells. Both microscopical and chemical examinations demonstrate this to be a fact. There is on an average, one privy well to every fifty-five feet square, and there are one hundred and fifty privy wells to every pump. Thus the water is shown to be most foul, as a fact, and the reasons why it must be so made evident.

"Similia Similibus," homœopathic remedy for tape worm, (*U. S. Med. Investigator*, June 15th, 1880:)

R. Etheral extract male fern. 3 iij
To be taken fasting, followed in two minutes by
R. Castor Oil. 3 ivss
and this by a cup of coffee, if desired by the patient

Shade of Hahnemann! What has become of the high potencies?

Of the total mortality in England, about one in three of the adult population die of phthisis, so says Dr. Guy, professor of public hygiene in King's College, London.

In the Colony of Victoria, New Zealand, one in three and seven-tenths of all deaths between the ages of twenty and twenty-five is from phthisis.

Alluding to the Tanner fast, the *Med. Press and Circular*, Aug. 11, 1880, says: "Spite of Dr. Hammond's testimony and that of those who with him afford certificates of genuineness, we are content on this side of the Atlantic to cherish the possibility that time will produce the exposure of little details likely to lessen the opinion now held in certain quarters of Tanner's wonderful staying powers. If the ostensible purpose of the fast had been an increase of scientific knowledge, why were not the surroundings of the experimentalist made such as would favor the record of the results and assist the ascertainment of fresh particulars concerning the progress of starvation. The accompaniments of gallery for walking in, hall for exhibition, drives amid admiring crowds, levees and daily performances, all savor too much of the Barnum business to deserve the attention of the inquiring physician."

Dr. Frank H. Davis, son of Prof. N. S. Davis, M. D., died at his residence in Chicago, Aug. 17th, aged thirty-two. The profession best knew him for his writings on subjects connected with diseases of the

throat and chest. He also edited a volume of lectures delivered by his father. We were greatly shocked on hearing the announcement of his death. He had not yet reached the prime of life, had every social and professional means for development, was an earnest student of more than average capability, so that his future seemed full of bright promise for good to himself and good to others.

The *Southern Medical Clinic* thinks that the Medical Society of Virginia fails to accomplish what it should. He recommends the adoption of the following changes:

To show and practice its *liberality*:—There should be no permanent officers in this society but every officer should be elected annually, and no officer should hold over a second year. This would give all a chance to have an office of honor at least, and in one case of profit. No man should hold more than one office at a time, and he should not be an officer two years consecutively. The patronage of the society should be *fairly dispensed*. The transactions of the society should be put out to the *lowest bidder* after advertising for estimates in some prominent paper or papers of our State. They should in no instance be published in connection with *any journal*, and thus avoid operating indirectly against independent medical journalism, and losing their importance as society papers.

The number of copies of the transactions should be *limited*, and the money of the society saved to advance its interests in another manner to be mentioned farther on. Five or six hundred copies, of a book of 100 or 150 pages, would be amply sufficient to supply every fellow *who has paid his fees* besides supplying all the exchanges proper to be kept up, and over one hundred copies could be left on hand, or sold for the benefit of the society. By taking a few first-class advertisements to help out, this book could be issued in handsome style as the "Transactions of the Medical Society of Virginia," at a cost of from \$200 to \$250 to the society, allowing the publisher the privilege of a few advertisements of reputable houses as mentioned above. These statements are made from our own personal knowledge as a *practical publisher*.

Retrenchment.—We have spoken of a change in the officers of the society. We would also state that we are paying our sec-

retary at least three times more than the office is worth; or in other words, there are many deserving young physicians who are waiting for practice, and consequently have an abundance of time, and but little money, who would gladly accept the office of secretary for the honor of the position and "one hundred dollars," and discharge the duties acceptably, and answer all *letters of inquiry politely*. Very few State societies have any paid officers at all, and we know of no State society that pays its secretary over *one hundred dollars* per year.

If the above changes can be effected (and we are prepared to practically demonstrate our proposals) it will at once give the society the appearance of being conducted *fairly and liberally*; will give satisfaction to many dissatisfied members, and will save from \$250 to \$300.

Now, to make the society attractive:—Let the \$200 saved by our proposed changes be divided into three *annual prizes*, two of \$50 and one of \$100, to be awarded to the writers of prize essays; and if our money and membership continues to increase, let us double and treble the number of prizes offered to Virginians, members of this society. We venture the assertion, that this scheme would draw. We would have an overflowing membership, and literary contributions of the very highest order, because the writers would receive both *honor and reward* for their labors. We would *pay for* and receive the very best material. No *committee* should decide upon the merits of these essays; they should all be read before a quorum of the society; and after the reading, the society, as a body, should decide upon the order of merit of the various essays.

One more *attractive feature* could be added to the society, of which I will speak, and close this paper.

A physician's mutual aid or life insurance provision could be introduced, and rendered very effective, and potent for great good. Suppose we have an assessment of \$1.00 to each member, to be paid to the families of deceased members, as well as a smaller assessment, say 25 cents per head, to be levied for the benefit of severe cases of distress and immediate need, occurring unfortunately among members of our society, except honorary. It is useless to go on to expatiate upon the great blessings that would result

from such an organization. Our membership would include nearly all of the doctors of our State, and the Medical Society of Virginia would become an honor to our profession—a great power for our elevation and protection, and a monument of our love and care for each other, especially for the unfortunate ones of our calling who fall by the wayside in their self-sacrificing labors.

It will be said by a few who would be the losers by this scheme, that this is all well enough if it could be practically carried out. All that is necessary is to pass the resolutions, and make them laws of the society, and the work will go smoothly; if it does not succeed, *nothing will be lost*. The society is not expected to put more money into the scheme than what its members annually pay, except in the case of the *insurance and mutual aid provision*, which can be made a separate affair if the society so wishes.

Editor's Book Table.

The Books Noticed in these Pages are for Sale by E. B. SMITH & CO., Detroit, Mich.

Michigan State Board of Health's Seventh Annual Report.*

As we publish regularly abstracts of the meetings of this board and notes of its most important work, our readers must be tolerably informed respecting it. The work of the board is classed by the secretary under three heads:—(1) The collection of information; (2) The creation of information, and (3) The dissemination of information. Information is collected by correspondents of the board, by special observers and by members of the board. This is so arranged that each collector has a special field exclusively to himself. The mass of facts thus obtained are grouped and condensed so that their meaning is clear, by either the secretary, or by other members of the board. The number of observations thus handled is enormous and the new views deduced therefrom of great value—a value that increases as the same observations and deductions are yearly continued. The dissemination of information is accomplished in a variety of ways, viz., by circular, by newspaper and by this annual report. Some idea of the extent of this volume may be

*SEVENTH ANNUAL REPORT of the Secretary of the State Board of Health of the State of Michigan for the year ending Sept. 30th, 1879. Cloth; pages 548. 1880. Lansing: W. S. GEORGE & Co., State Printers.

gathered from the statement that its alphabetical index covers thirty-eight closely printed pages of very fine type.

The facts and arguments presented by Prof. R. C. Kedzie and others respecting illuminating oils are of universal interest. It is shown beyond a doubt that large numbers of lives and much property have been saved to our state by judicious legislation. The history of the past legislation shows the dangers of the future, and suggests a constant watch lest the enemies of public health cause the enactment of unwise laws. A report on glanders in animals and man calls attention to the facts respecting this terrible disease, and suggests the measures needful to protect both animals and man from its ravages. It is an exhaustive compilation of most that is known respecting it. The meteorological conditions in Michigan are placed in close proximity to the weekly reports of prevailing diseases. To bring any order out of these numerous observations has called for infinite patience and perseverance. It may be too soon yet to deduce any general laws therefrom, but after a few years they will furnish data of incalculable value for the investigation of the etiology of disease. Dr. Hitchcock's report on slaughter houses, rendering establishments, etc., presents very cogently the reasons why such operations could and should be so conducted as not to interfere with the health of the communities in which they are placed. Dr. H. F. Lyster presents some very interesting facts relative to the reclaiming of drowned lands. Other papers discuss the "water supply of Michigan," the "powers and duties of local boards of health," "diseases in Michigan during 1878," duties "and compensation of a health officer," "epidemic, endemic and contagious diseases," "waste of human life at the falling of the Grand Stand at Adrian, Michigan, and the wrecking of the Pacific express at Jackson," "heating and ventilating private dwellings and public buildings already constructed," "regulation of the practice of medicine," "privies and water closets at railway stations." Besides we have a full report of everything pertaining to the official acts of the board. It astonishes us that the State has procured all this skillful labor at the insignificant sum of \$4,000. One can only account for it upon the ground that the board acts on the principle that its work is missionary, labor not expecting to receive a reward

commensurate with its amount. We hope that our next legislature will see the propriety of at least furnishing a more adequate compensation to the secretary. Meantime the cause of public health is gradually advancing in our State, and its influence for good is being felt more and more even in the remote hamlets.

Fothergill's Principles of Therapeutics.*

This work is widely known by the English speaking medical profession. Almost universally it has been warmly commended. It entered upon a new field, proving itself a capital aid both to works on therapeutics and on practice of medicine. In the edition before us several additions have been made to the text as "when not to give iron," "the functional disturbances of the liver," "the means of acting on the respiratory nerve centres," "the reflex consequences of ovarian irritation," and "artificial digestion." In the discussion of each subject the author gives its physiology, then its pathology so far as related to treatment; next he examines the action of remedies as related to it, and lastly furnishes concrete prescriptions for the practical application of the remedies concerning the treatment of the night sweats of phthisis; the author especially recommends the use of atropia, but in larger doses than those usually employed. He commences with a dose of one seventy-fifth of a grain for an adult, and increases the dose until the desired effect is attained. This often requires one-twenty-fifth of a grain. In treating the cough of phthisis he often combines morphia with the atropia, adding to the combination a little capsicum and some pill aloes and myrrh. He commends the use of a sponge bath of hot vinegar containing some capsicum to be employed about an hour before the usual onset of the sweats. Not only is the matter unusually good and suggestive, but the style is so entertaining that the reader is at once carried captive by it. No person in the profession could fail to read this volume without both pleasure and profit—general practitioner, surgeon, or specialist all have an interest in the questions here raised. We could wish that all medical writers possessed the same happy mode of conveying their thoughts to others.

*THE PRACTITIONER'S HANDBOOK OF TREATMENT OR THE PRINCIPLES OF THERAPEUTICS.—By J. MILLNER FOTHERGILL, M. D., second American from the second London edition. Enlarged. 1880. Cloth; pages 647. Philadelphia: HENRY C. LEA'S SON & Co. Price, \$5.

Annual Trans. Maryland Medical Society.*

The work of this excellent medical society is still above the average of similar organizations. Dr. S. C. Cheen opens the meeting by a discussion of "medicine, its past and future." Dr. Jno. W. Mallet gave the annual address upon "the claims of science for its own sake upon the medical profession." We wish such a sermon could be given to the entire profession at least yearly. There is no question but the medical profession suffers incalculable harm from the fact that its masses have not the slightest appreciation of science for its own sake. What science they possess is to them valuable only as a means of gain, money or business. Hence narrowness of mind and intellectual deterioration which shows itself everywhere and constitutes an insuperable barrier to their own highest development as physicians. The reports on the several departments of medicine and surgery are very disappointing.

White's Medical Register of New York, New Jersey and Connecticut.†

For such as desire any knowledge concerning the medical profession in New York, New Jersey and Connecticut this register is simply invaluable. The list of physicians in New York contains four thousand three hundred and seventeen names, that of New Jersey six hundred and forty-five, and that of Connecticut four hundred and twelve. A brief account is given of all national medical associations and of all local ones in the three States mentioned. All medical institutions of every sort in the same States are described; all pharmacists and pharmaceutical institutions, all that pertains to nurses, to medical journals, medical history, removals of physicians, chronological record for 1879, and obituary. Every part of the work is as accurate as it is possible to make it. Certainly its editor deserves the thanks of the profession, not only for his accuracy and thoroughness, but also for his promptness. An exhaustive index places all the numerous individual facts immediately at the disposal of the student.

*TRANSACTIONS OF MEDICAL AND CHIRURGICAL FACULTY OF THE STATE OF MARYLAND.—Eighty-second Annual Session. 1880. Paper; pages 216. Baltimore. Md. Secretary, Dr. WILSON, G. Register.

†THE MEDICAL REGISTER of New York, New Jersey and Connecticut for the year, commencing June 1st, 1880. Published under the supervision of the New York Historical Society. WILLIAM T. WHITE, M. D., Editor. Cloth; pages, 264. 1880. New York: G. P. PUTNAM'S SONS.

Wythe's Manual of Microscopy.*

The first edition of this work was issued in 1851 as a manual for the use of physicians and naturalists. From then until now it has continued to increase in extent until its present form is reached. Nearly half of the volume is occupied by descriptions of the microscope and of methods of using it, of its use in mineralogy and geology, in chemistry, in biology, in zoology, and in vegetable histology and botany. Then a chapter on animal histology introduces us to chapters on pathology, in diagnosis and in ætiology. The illustrations are fairly done, but they seem to be in the main copies from more original works. While it contains much that is of interest to the microscopist there is little that is not told better in other works already before the profession. It is well issued by the well known publishers.

*THE MICROSCOPIST, a manual of Microscopy and Compendium of the Microscopic Sciences, Micro-mineralogy, Micro-chemistry, Biology, Histology and Practical Medicine. Fourth edition; greatly enlarged, with two hundred and fifty-two illustrations, by J. A. WYTHE, A. M., M. D. Cloth; pages, 434. 1880. Philadelphia, Lindsay and Blakiston. Price, \$5.

Abstracts from Exchanges.

Prepared by Judson Bradley, M. D., Albert B. Lyons, M. D. and E. A. Chapoton, M. D.

Anatomy.

THE FORAMINA OF MONRO.—Dr. Burt G. Wilder (Boston *Medical Journal*, August 12, 1880), from an apparently exhaustive study of the matter, concludes: (1) It will be better to consider that there are two foramina of monro, one for each lativentricle. (2) The cephalic end of the mediventricle forming what was originally regarded as the middle part of the passage called foramen of monro should probably be recognized as a distinct ventricular integer and might be named aula. (3) The work claiming to contain the first sufficient description of the interventricular communication was written by Alexander Monro, secundus, and the name was given in his honor. (4) Who first employed the name, I have not been able to learn, and what was first implied by it can only be inferred until the first use of the term is known.

Materia Medica.

URARI, ITS MANUFACTURE.—Dr. R. Schomburgk, (*London Medical Record*), tells us how he saw an Indian make urari.

Having collected the ingredients the Indian mixed by weight as follows: Bark of *strychnos toxifera* two pounds, *strychnos schomburgkii* a quarter of a pound, *aremaru* a quarter of a pound, *wakarimo* a quarter of a pound, root of *tarviene* half an ounce, root of *tararemu* half an ounce, the fleshy root of *muramu*, four small pieces of wood of a tree of the natural order *Xanthoxyleæ* called *manuca*. Having finished this weighing the Indian brought forth a new earthen pot holding about seven quarts, and two smaller ones also quite new, formed like flat pans. In the first vessel the poison was to be boiled, and in the other it was to be exposed to the sun for condensation. The great strainer or funnel made out of palm leaves was cleaned, and fresh silk grass was put into it to strain the fluid. A great block of wood sunk into the ground to serve as a mortar was cleaned, and in it the several ingredients were crushed. Each bark was crushed singly in the mortar. The fire was lighted and the *strychnos toxifera* thrown into the water. As soon as the water began to boil the other ingredients were thrown in handful by handful. The fire was kept so as to maintain a slow boiling of the pot, the foam being carefully skimmed off as it was formed. For twenty-four hours he never left the pot. Now the extract became thick, the color of strong coffee. It was now strained into the other flat vessel. Having exposed this juice to the sun for about three hours he added the juice pressed out of the root of the *muramu*. The poison immediately curdled to a jelly like substance. The substance was now poured into still flatter vessels and exposed to the sun until it attained the consistence of thick treacle. Then it was poured into half round vessels where it ultimately became hard. It was now ready to be used. Although made from *strychnos* it does not contain any strychnine, nor does it have any of the effects of strychnia. It produces a paralysis of the voluntary muscles.

TRUE CHIAN TURPENTINE—ITS CHARACTERISTICS.—The recent furore over this drug as a remedy for cancer, has caused a large amount of spurious material to be placed upon the market. To aid in distinguishing

this from the true, Mr. John Cloy, of Birmingham, England, who first called attention to it as a cancer cure, gives us the following description (*London Lancet*, July, 1880): The pure drug is of such a solid nature that a portion taken between the fingers may be rolled into the form of a pill, without adhering to the fingers; thus it is very different from the large number of spurious specimens supplied to the public which usually have had a syrupy consistence. The odor of the genuine drug is peculiar. If a portion be softened between the fingers, the fragrant odor can be readily perceived and is not by any means similar to that of turpentine oil, while the spurious kinds smell strongly of the latter substance. The taste of the pure article is peculiar in not being unpleasant, indeed, it is almost tasteless. The taste of most spurious kinds is very bitter and unpleasant. The brittle yet elastic nature of the pure drug is very striking. If a piece is warmed and rolled out and is allowed to cool and is then dropped on the floor, it generally breaks into a number of fragments. If a mass is placed in a shallow vessel it usually flattens and spreads over the vessel, the surface being smooth. When the pure drug is placed between two pieces of warmed glass its appearance corresponds exactly with that given in the *Pharmacographia*. If the drug is spurious, consisting of perhaps, *stanica*, crude turpentine or Venice turpentine, and so placed between warm glass it will present the appearance of water. If Chian turpentine be adulterated with Canada balsam, on placing the mixture on a glass and applying gentle heat, the balsam will melt and flow over the glass, while the Chian turpentine remains in the centre. The taste, odor and appearance are the chief physical characteristics of the drug.

Practice of Medicine.

COD-LIVER OIL—ITS PROPHYLACTIC USE.—Dr. Wm. H. Thomson, (*Boston Medical Journal*, June 17, 1880), thinks that as the red blood corpuscles contain twice as much fat as iron, the administration of fat in some form is more strongly indicated in any state of the system attended by a diminished number of blood corpuscles than even iron itself. He called attention to the fact that the nervous system contained more fat than any other part of the body. Hence during the greater activity of the nervous system

fat was specially called for. The critical period of life is between the end of lactation and the close of the sixth year. During this period the growth of the brain is incomparably more rapid than that of any other tissue at any time of life whatever, with the exception of the pregnant uterus. So that at the age of seven years it is nearly the size of the adult. During the same period the activity of nerve function is far greater than at any other season of life. Countless new ideas are being grasped, language is acquired and the factors for the whole future work of life have to be stored away. The physical result of all this brain growth and brain work is that unless great care is taken with the child, the energies of the rest of the body are sacrificed to the activity of the nervous system. Under the best conditions the number of red blood corpuscles is steadily lower during this period of life than at any other. In short this is a period of natural anæmia, during which vast numbers of children perish. With these views cod-liver oil, which has been found to be the agent best adapted for conveying fat into the system, is indicated not only as the great remedy for scrofula and similar affections, but as the best prophylactic against them.

PATHOLOGICAL CONDITIONS IN WHICH A FREQUENT PULSE IS IMPORTANT.—Dr. McBride, (New York *Medical Record*), gives the following:

1. Fevers.—“In fevers the pulse is generally quickened in proportion to the elevation of temperature, though the proportion between the pulse and the temperature varies in different fevers. In scarlet fever the pulse is quicker than in typhoid fever with the same temperature, hence a quick pulse is of less serious import in scarlet than in typhoid fever. The same elevation of temperature quickens the pulse relatively much more in children than in adults.”

“If a pulse is quicker than the temperature will explain, it indicates cardiac weakness—the weakness being proportionate to the want of ratio between the temperature and the pulse. In this way the pulse affords important information in prognosis and treatment.”

“A pulse that day by day progressively increases in frequency, the temperature remaining the same, shows increasing cardiac weakness.”

“In all febrile diseases a pulse in adults over 120 is serious and indicates cardiac weakness. A pulse of 130 or 140 indicates great danger, and with a pulse at 160 the patient almost always dies.”

a. In eruptive fevers, just before the appearance of the eruption, the pulse becomes sometimes very frequent.

b. In relapsing fever, during the febrile periods, the pulse is of very great frequency and is often 130 to 140. It attains a greater degree of frequency than in any other fever, without being of grave significance (Murchison).

c. In typhoid fever the prognosis is usually bad when pulse persistently exceeds 120 (Murchison).

d. In the convalescence from all fevers the range of increase in the frequency of the pulse, in changing from a recumbent to a sitting or standing position, or the range of decrease in its rate in changing from a standing or sitting to a recumbent position, is a measure of the debility of the patient. During the pyretic period such changes in position have little or no effect. The rate of the pulse may, therefore, be of importance in gauging the strength of the patient.

2. Inflammations:

a. The occurrence of a sustained frequency of the pulse after confinement is a very suspicious symptom, and may betoken advent of puerperal peritonitis.

b. Diseases of the lungs and pleura.

1. Under the age of fifteen any disease of the lungs is almost invariably accompanied by great frequency of the pulse, so that a pulse of 120 to 140 would not be considered as so serious in significance as if it occurred in an older person.

2. When a frequent pulse is present in pneumonia it is always of bad significance, even if only a small portion of the lung is involved. Moreover, when a pneumonia occurs in the cachectic or debilitated, the pulse is especially apt to be frequent, often 120 to 160, and such cases usually die.

3. When complicated with heart disease, the frequency of the pulse is significant. Traube asserts, when in a strong robust person you find a pneumonia with a pulse of 120 you may be sure that there is present some form of heart disease.

c. In the diagnosis of incipient phthisis a sustained frequency of pulse is thought to be

of importance by Sir Thomas Watson and others.

d. In pleuritic effusions the pulse may be very frequent especially when there is displacement of the heart.

e. In pericarditis and myocarditis very great frequency of the pulse is observed at times—especially on any movement by the patient—130 to 160. The change in rate may be very sudden and is of some importance in diagnosis and prognosis.

f. In acute articular rheumatism unaccompanied by peri-, endo- or myocarditis, a pulse of 120 or more indicates great danger (Ringer).

g. In the last stages of meningitis of the convexity and particularly in tubercular meningitis, a very frequent pulse is often observed.

3. Diseases of the nervous system:

a. In diseases affecting the medulla oblongata—in glosso-labio-laryngeal paralysis the pulse is quite frequent.

b. In the early stage of locomotor ataxia a frequent pulse is a quite constant symptom.

c. In Basedow's disease a pulse of 120 to 140, and even of 200, is often observed at times.

d. In hysteria an exceedingly frequent pulse is not uncommon, 130 to 160 and more.

e. In puerperal mania, Sir James Y. Simpson insists upon the very great importance of the frequency of the pulse in prognosis, and he states that where the pulse is 110 or over, the outlook is very bad, and that in his experience no case has ever recovered.

f. In certain cases of peripheral irritation a very great increase in the rate of the pulse has been observed:

1. Where tumors in the neck have pressed upon the pneumogastric or sympathetic nerves.

2. In cases with intra-thoracic tumors.

3. Where there has been some inflammatory process in the sheaths of the pneumogastric or sympathetic nerves.

4. In cases of irritation of nerves in the abdominal cavity as by over-distention of the intestines by gas; in the passage of hepatic and renal calculi; worms in the intestines, etc. As showing the very great disturbance of the pulse, which may be occasioned by the presence of entozoa in the intestines, a case was reported in the *British Medical Journal*, June, 1867, in which attacks of palpitation

of the heart with a pulse of 240 were observed, and after the expulsion of a tænia from the intestines the attacks entirely disappeared.

g. In nervous exhaustion the result of venereal excesses, or over-indulgence in alcohol, coffee, or tobacco, or from excessive mental or physical labor, or as the result of previous disease, a very frequent pulse is often observed, and this may, when very frequent, have an alarming significance. Dr. Latham, in the new Sydenham edition of his works, vol. ii., p. 538, describes most eloquently the significance of the very frequent pulse. Liking the heart to the finger of the clock, he says: "We have already seen in these two cases the index hurrying rapidly round the dial-plate, and telling that, from some cause or other, the mechanism within was running down, and if it were not arrested that it would quickly stop. Even prior to any outward presentments to give assurance of disease, even earlier than its known beginning, we have seen countless fluttering of the heart and arteries give token of the nervous system already under trial of mortal suffering, and ready to let life go for ever."

The slow pulse will be our next subject.

CONSUMPTION—ITS THERAPEUTIC AND HYGIENIC MANAGEMENT.—Dr. J. F. Hibberd, (*St. Louis Medical Journal*), thinks that much good may be accomplished in the management of consumption. He suggests as aids to this end the following: (1) Consumption is a self-limited disease. (2) It should, therefore, be managed through its stages as is done with other disorders of its class. (3) Statistics point to the conclusion that rather more than eleven per cent. of consumptives will recover if left to nature entirely. (4) Clinical study leads to the inference that judicious treatment may increase this percentage of recovery. (5) A survey of the popular professional methods of management raises the presumption that they are far from the best. (6) Consumption has no specifics and demands but little medicine, the only drugs required for their essential and direct action being the alkaloids of cinchona and opium and, perhaps, iron. (7) Recognizing the real nature of consumption, the profession should set their faces firmly against the multitudinous remedies prescribed in many text books, and positively repudiate the numerous nostrums now so industriously

forced upon the attention of practitioners by mercenary persons. (8) Rational simplicity in therapeutics is desirable in all diseases; it is a scientific and humane necessity in consumption. (9) Galloping phthisis and acute phthisis are perfectly uncontrollable by any of the therapeutical measures at our command. (10) Tubercle shows a tendency to cure by (a) softening and expulsion, a process which does some damage to the lung by producing excavation, but which may safely end in cicatrization, (b) by fibrous degeneration of the affected part, (c) by calcification. (11) The evolution of tubercle may be arrested and it dies. (12) The grand problem, therefore, in the treatment of tuberculosis is to enable the patient to outlive his tubercles, a problem which, in a great many cases, is certainly not insoluble.

LATENT ALBUMINURIA.—Prof. E. Johnson, (abstract in *American Practitioner*), points out as a matter of common observation that the urine of persons apparently in perfect health is often found to contain more or less albumen. It is unassociated with any other evidence of functional disorder or structural diseases, but by careful inquiry it can be traced back to a probable exciting cause. The presence of even the smallest quantity in the urine is always pathological and never physiological. The neglect of this indication of disease, if it involves exposure to the exciting cause may convert a temporary into a persistent albuminuria which sooner or later may result in fatal disorganization of the kidney. In addition to scarlet fever and other pyrexial causes of albuminuria, Dr. Johnson thinks exposure to wet and cold are large factors in its production, and that too without any general evidence of acute nephritis. He thinks that after any recognized exciting cause of albuminuria careful and repeated examination should be made of the urine until convalescence has been established. He thinks that exposure to wet and cold after severe physical exertion is the starting point in many cases. Imprudent cold bathing is the cause of mischief in others. In other cases large quantities of animal food with or without alcoholic stimulants lead in time to renal mischief. The kidney is the channel through which albuminoid waste is eliminated. High functional activity of the kidney in time works its ruin. Then chronic dyspepsia leading to general nerve

exhaustion and loss of vaso-motor nerve force and consequent diminution of tone and contractile power in the muscular walls of the arterioles generally, including those of the kidney, is followed by depraved nutrition. Thus the filter and the fluid to be filtered are both materially changed; while the increasing impurity of the blood throws nerve work upon the kidney and favors the escape of altered albumen which is often much increased after food. Then come small hyaline and granular casts, and ultimately structural degeneration the result of long continued elimination of some products of faulty digestion through the kidney.

ERGOTINE HYPODERMICALLY IN DYSENTERY.—R. M. King, M.D., (St. Louis *Clinical Record*, June, 1880), had an article under the above caption. He advocates the use of three grain doses of ergotine hypodermically in the hemorrhagic diathesis and in dysentery, and supports his statements and opinions with cases. Now and then we find something in such doses that seems to startle us, but then the results are good—so said—and we submit. Abscesses are prevented by the application of cold to the point of puncture.

TUBERCULOSIS AN INFECTIOUS DISEASE.—Dr. L. G. Bryher, (*Worksh Magazine for Lægevidenskaben, Medical and Surgical Reporter*), reports the following instance which occurred under his own observation. A phthisical man married a woman of healthy family; the man died, the woman became phthisical, as did also her sister who resided in the house during the man's illness. The latter married a man of great strength and of sound family; he, too, was attacked, and also his sister's daughter who resided some time in the house. One of their children died of tubercular meningitis, two had signs of pulmonary tubercle, one was free. The girl who served the first man's wife became tuberculous, went home and died. Her sister was infected by her, both their parents had lived to a great age, and tuberculosis had never before shown itself in the family.

STATE OF THE GANGLIONIC CENTRES IN BRIGHT'S DISEASE.—Doctors Da Costa and Longstreth, (*American Journal Medical Science*, July, 1880), report a series of investigations into the above subject. They conclude: (1) In Bright's disease, especially in

the contracting kidney, there exists a constant lesion of the renal plexus. (2) Whilst this lesion might be looked upon as forming part of a general process of degeneration, in connection with the kidney disease, we think it is the cause of the renal malady and precedes the degenerative changes. (3) The diseased condition of the ganglia furnishes the clue to the alterations of the vessels of the kidneys. (4) Similar changes producing similar results may exist in other ganglia; for instance, in the cardiac plexus explaining the hypertrophy of the heart.

WORMS EXTRAORDINARY.—(*L'Union Médicale*, May 18, 1880), Dr. Fauconneau Dufresne, in a lengthy communication to the French journal cited, gives the detailed record of a case of a boy, aged twelve years, who in less than three years passed more than five thousand lumbricoid worms, and principally by the act of vomiting. Nine months having passed before the doctor reported his case, and no worms having been rendered in the meantime, the patient may be considered definitely cured. The treatment consisted of santonine and calomel, garlic and milk and infusion of mint. In connection with the case, the doctor calls attention to the following points: (1) That it was astonishing, that among this mass of worms, none found their way into the ciliary, or pancreatic ducts, as sometimes happens when very few lumbricoids are in the intestines. (2) Davaine, in his classical work, says that these worms only unite in balls when they commence to feel the coldness of the cadaver—but, in this case they were most frequently rendered in this form. (3) In respect to number, twenty-five hundred have been the most credited to any one patient, whilst here 5,126 are accounted for by actual enumeration, whilst many masses were never counted.

SYPHILITIC MUSCULAR CONTRACTION.—(*Cincinnati Lancet and Clinic*, May 15, 1880) M. Cesbron has brought together some facts in regard to this, as yet little known affection. He has reference to those contractures which show themselves in the course of syphilis, without any appreciable lesion of the contracted muscle, or of the parts in its neighborhood. It may appear as a secondary or tertiary symptom. It attacks different muscles, as the masseters, or the muscles of the calf; but its seat of election is the biceps. In such a case, the symptoms would be, in-

ability to extend the arm perfectly. In attempting to extend by force, it can be seen that the biceps is contracted and prevents movement. As time advances, extension becomes more limited and the forearm remains flexed on the arm at a variable angle. The movements of the joints are, therefore, much less than normal, but all movements within the angle at which the arm is flexed, are made easily and without pain. Forced extension is exceedingly painful. By palpation the muscle can be felt as a hard round body. The affection is accompanied by more or less pain, which is usually felt at the inferior insertion of the muscle. Syphilitic contracture never constitutes a dangerous affection, but it may last for a long time, even for years. It yields to appropriate anti-syphilitic treatment promptly. The author recommends mercury when the symptoms appear early in the disease, and the iodide of potassium when they appear late.—*Journal de Médecine et de Chir. Practiques*.

URINIFEROUS CASTS.—THEIR NATURE AND CLINICAL SIGNIFICANCE.—Dr. Jas. Tyson (*Med. Times*) makes the following suggestive statements respecting urinary casts: (1) Hyaline casts are found in all forms of Bright's disease, as well as in temporary congestion of the kidney, active or passive. (2) Epithelial casts are found in acute, subacute and chronic parenchymatous nephritis. In the latter two forms the cells are generally degenerated and fragmentary. (3) Blood casts are found in acute parenchymatous nephritis and where hemorrhages have occurred in the kidneys. (4) Pale granular casts are found in interstitial nephritis and chronic parenchymatous nephritis. (5) Dark granular casts are found in parenchymatous nephritis, acute and chronic, and rarely in interstitial nephritis. (6) Waxy casts are found only in chronic Bright's disease, and attend either of the three principal forms. (7) Oil casts are found in subacute and chronic forms of Bright's disease, and may attend any of the three principal forms, but are most numerous in chronic parenchymatous nephritis. (8) Free fatty cells and free oil drops are found in chronic parenchymatous nephritis. (9) The form of fatty cell known as the compound granular cell is found in acute and chronic parenchymatous nephritis.

PRINCIPAL COMPLICATIONS OF DIABETES.—(*Lyon Med.*, April 11, 1880).—Dr. Grellety,

of Vichy, contributes a very interesting paper upon this subject. His great experience gives the weight of authority to whatever he communicates upon this disease: "From the moment that diabetes affects the organism we can understand how every organ, at some period of the affection, may become the seat of greater or less perturbations. The anhydration of the tissues on the one hand and their impregnation with sugar on the other, form a condition which places the body in continual danger; something insignificant in appearance suffices on occasion to throw an almost healthy person into a dying state. The complications of glycosuria are now less frequently met with than in years gone by, thanks to the better knowledge which now prevails of the disease. Besides the polydipsia, the polyuria and the stained linen, the cutaneous manifestations are now complications whose appearance almost inevitably forms the basis of a correct diagnosis. Prurigo, lichen, thrush, herpes, eczema, etc., are frequently met with, all of which may be speedily followed by erysipelas, sphacelation and phagedena; but boils and anthrax are most commonly seen, and as the latter are always early symptoms, they are worthy of attention. The favorite seat of anthrax is on the posterior portion of the neck; its vinous and cyanosed appearance distinguishes it from ordinary anthrax, which has a more inflammatory aspect. It is likewise more diffuse and has a greater tendency to become gangrenous. Anthrax of the cheeks, fortunately very rare, ordinarily causes a facial phlebitis with cerebral complications. The former fears of gangrene in this disease were well founded, for it occurs with the greatest facility in any inflamed tissue; it sometimes also makes its appearance, like the senile form, by spots upon the extremities and spreads rapidly, especially in the last stages of the affection. Every extrinsic auxiliary influence can, therefore, be promptly put into action in determined points, the predisposition created by the general condition. Hence the best way to interfere by tonifying and improving the entire organism, and then local applications will be more apt to prevent mortification, or, at least, to stay its course. The next complications in order of frequency are disturbances of the alimentary canal and its annexed organs. The tongue is dry, sticky, rough, harsh; epithelial pro-

liferation takes place; the movements of the organ are restrained; speech is difficult and embarrassed; the saliva is viscous and acid, particularly before meals and especially in the morning and during the intervals of digestion. This acidity, probably due to decomposition of glucose and the formation of lactic acid, gives a sourish odor to the breath, which once perceived is never forgotten and which has often served to direct the physician towards the diagnosis of the disease. The contact of this acid saliva with the labial commissures produces ulceration, which may become the starting point of a really dangerous erysipelas. The gingivitis, which may also result, causes the fall of the teeth, whilst the latter, being constantly bathed in the acid liquid, literally fall to pieces. This caries, strange to say, almost always commences with the second molar and progresses from behind forwards. Can this be due to the anatomical position of Steno's duct?

In other parts of the alimentary canal, we find dyspeptic troubles, constipation (diarrhoea only occurs in the final stage), increased volume of the liver (28 times in 100), grave lesions of the pancreas which usually coincide with great emaciation and loss of great quantities of fatty matters in the stools.

To these may be added vulvar pruritus, troublesome irritation of the urethra, phymosis, balanoposthitis, pyelitis, cystitis, etc. Cystitis in children brings on incontinence, and when the two are found, sugar should be looked for. The sexual appetite is always below normal in diabetic patients, and this occurs long before it can be attributed to the breaking down of the system. Great modifications are observed in the urine; glucose coincides or alternates with urea, albumen, the phosphates, uric acid, inosite, creatine, etc.

The very acute course of the disease is observed particularly in children and young people. It appears that the gravity of the disease diminishes with age. After fifty, the prognosis becomes better.

The author reserves the thoracic complications for the close of this paper, since they so frequently put an end to the patient's career. He first cites lobar pneumonia, which passes so easily to a chronic state, to suppuration and gangrene. The apices are particularly attacked. Broncho-pneumonia, bronchitis and the pulmonary œdema of dia-

betics are very chronic. Eighteen diabetics out of a hundred die of tuberculosis. The younger the subject, the more is he exposed to this complication. Generally it is a dryer form of the disease than is found in ordinary patients; the expectoration is less and late to appear; hemoptysis is rare; the breath is less fetid; there is little or no fever, and when the latter occurs, sugar disappears. Exaggerated degree of perspiration only appears towards the close. This increased secretion is always a bad sign in this disease, for it diminishes the urinary excretion, and in consequence that of the sugar, which becomes more and more concentrated; appetite is generally preserved, a fact seldom seen in an ordinary case of tuberculosis. The nervous complications consist of convulsions, sensory troubles (anæsthesia and partial hyperæsthesia), neuralgias, epileptiform convulsions, paralysis, coma, aphasia, notable disorder of the intellectual faculties, etc. Finally, we have the ocular troubles and particularly soft cataract, which affects four out of every hundred diabetic patients. Contrary to the rule for anthrax, an operation may almost always be attempted with profit.

In concluding, M. Grellety recalls the fact that Vichy is the port of safety for many diabetics, and particularly for those who have kept their weight and have gouty antecedents; the painful symptoms are lessened while the quantity of sugar diminishes greatly. A great number of patients thus keep themselves up, by repeating yearly the alkaline cure; some have returned every year to Vichy for twenty seasons past, and they always obtain the same benefit. Not only the waters are used, but all prophylactic means of avoiding dangers are put into play, as well as proper accessory medications. The regimen is severe and graduated exercise insisted upon. The diabetic patient must be watched like a frail plant, whose weak vitality may be destroyed by the least shock or blast."

ANOTHER SYMPTOM OF PERI-NEPHRITIC INFLAMMATION AND ABSCESS.—(Cincinnati *Lancet and Clinic*, May 15, 1880.) Dr. J. M. Holloway, of Louisville, Ky., calls attention in a lengthy paper in the *Medical Herald* to the difficulties attending the diagnosis of peri-nephritic inflammation and abscess, and adds to the list of usual symptoms one which

he believes from his experience is easy of recognition, and is almost invariably present. It consists in lateral curvature of the spine in the lumbar region, with the convexity pointing towards the sound side, and a diminution or obliteration of the costo-iliac interspace of the affected part. Since he first accidentally discovered this symptom he has found it in every case of peri-nephritic inflammation or abscess which has presented itself, and has called the attention of other physicians and consultants to it. In the paper are related the details of a number of interesting cases of the kind. The symptom appears even before suppuration takes place.

PULMONARY SYPHILIS AND ITS RELATIONS TO PHTHISIS.—(Cincinnati *Lancet and Clinic*, May 22, 1880.) In a pamphlet recently published on this subject, Prof. Schnitzler (Vienna) lays particular stress on the relations of pulmonary syphilis to specific affections of the larynx, on the simultaneous appearance of the lesions and the confirmation of syphilis of the lungs, through co-existing disease of the larynx. Among the earliest symptoms Prof. Schnitzler designates the sensation of weight and pressure in the chest, irritation in the throat and paroxysmal cough. The latter is attended with more or less expectoration, of a catarrhal or purulent nature, which at times becomes distinctly tinged with blood. Hæmoptisis is not a very rare manifestation. Dyspnoea and asthmatic attacks are usually present, and pain in the larynx; aphonia and dysphagia are rarely absent. Percussion yields a dull note over the middle or lower lobe and the ear detects indistinct bronchial breathing and moist rales. The attending fever is usually of an intermittent or remittent character while the disease is progressing, but the constitution of the patient is never so severely involved as in cases of phthisis. Even in persons very much reduced syphilitic affections of the lungs are curable. Pulmonary syphilis makes its appearance in the form of circumscribed infiltrations (nodules), or diffuse exudations. In the latter condition the lung presents firmer texture, greater weight and smooth surface. The section of the affected lobe presents a grayish-red or yellow color and yields a slight serous flow on pressure. The bronchial glands are usually considerably tumefied. The cir-

cumscribed infiltrations occur more frequently in adults, and usually a number of nuclei, rarely more than ten, are found varying in size from a hazelnut to an egg. When the gummata commence to break down vomica are left, which when they are closed with granulations leave large contracted cicatrices. As a rule syphilitic lesions of the lungs appear from two to five years after infection, in rare cases even ten and twenty years elapse before the supervention of lung trouble. While the affections described belong almost entirely to the tertiary stage of syphilis, Prof. Schnitzler calls attention to an earlier disease of the lungs which appears as a specific bronchial catarrh. The author finds that specific laryngitis is often accompanied by catarrhal symptoms in the large and small bronchi, even within the first two months after inoculation, which disappear only in consequence of an anti-specific treatment. It is believed that many cases of asthma which yield so readily to the iodide of potassium depend upon syphilitic bronchitis and secondary glandular enlargement. For the differential diagnosis of pulmonary syphilis it is of the greatest importance to establish specific antecedents and the immunity of the family from phthisis. The seat of the lesion alone is not conclusive, for syphilis may be localized in the apices. Prof. Schnitzler recommends the administration of iodide of potassium or sodium (3 ss-3 iii daily). If relief does not follow, inunctions with mercurial ointment are advised. An enumeration of five cases elucidate the views entertained by the author.

Physiological Action of Medicine.

HOMATROPIN—ITS PHYSIOLOGICAL ACTION.—Drs. Tweedy and Ringer (*Lond. Lancet*, August, 1880), by experiments show that homatropin possesses many of the properties of atropin, but in a weaker degree. On the heart, however, their effect is very different, for atropin accelerates and strengthens the heart's contractions in man, while the homatropin slows the beats and renders them irregular in force and rhythm. Applied locally to the eye a four grain solution of homatropin widely and fixedly dilates the pupil in from fifteen to twenty minutes, and affects the accommodation in an equally rapid manner. The chief peculiarity, and in some respects the great advantage of homatropin

is that its effects soon pass off, and certainly do not last anything so long as those of atropin. Within four and twenty hours after an application the accommodation, after complete apparent suspension, recovers its pristine vigor, the pupil is less dilated and reacts to light though it has not quite regained its original size. As regards its action on the ciliary muscle, though decidedly more prompt, it is not quite so intense as that of atropin. Homatropin is moreover singularly unirritating.

BUPHANE TOXICARIA, OR HEMANTHUS TOXICARIUS—ITS PHYSIOLOGICAL ACTION.—Drs. Ringer and Morshead, (*Archiv. Clinical Medicine*, June, 1880), report their experiments upon this drug. It is used by the Hottentots of South Africa to poison their arrows. They found that in warm blooded animals hemanthus causes drowsiness, general weakness, tremors, and tetaniform startings, impaired sensibility, dilatation of the pupils, dimness of vision, dryness of the mouth, hurried and shallow breathing, nausea and sickness. In frogs it causes paralysis and tetanus, and paralysis precedes tetanus. Tetanus is due to the action of the poison on the spinal cord. Paralysis is due chiefly to the action of the poison on the spinal cord. Hemanthus paralyzes in a slight degree the motor nerves and muscles. Hemanthus paralyzes the vagus and the intra-cardiac inhibitory apparatus. It slows and weakens the heart of frogs. It antagonizes the action of extract of muscaria. Atropia does not antagonize the effects of hemanthus on the frog's heart. In man it produces general weakness, delirium, dryness of the mouth, increased urinary secretion; topically applied it dilates the pupil. The action of this plant corresponds very closely to that of the alkaloid from the common daffodil, a member of the same order of plants. In warm blooded animals both dilate the pupil whether applied locally or given internally. Both dry the mouth, produce general weakness, tetaniform twitchings, nausea, sickness and hurried breathing. Both antagonize the action of extract of muscaria on the frog's heart. The action of both drugs is very like that of atropia, both drugs act thus only when obtained from bulbs of the plant when in flower. When the alkaloid is extracted from the bulbs after flowering, it causes salivation, contracts the pupil when internal-

ly administered and slightly dilates it only when topically applied. The pupil dilators given internally or topically applied are atropia, hyoseyamia, daturia, duboisia, narcissia (from flowering bulbs) hemanthia, conium, homatropin. Muscarin given internally contracts the pupil, but topically applied dilates it. Narcissia (from bulbs after flowering has ceased), pituria and gelsemia given internally contract the pupil, topically applied they contract and then dilate the pupil. Physostigmia, pilocarpia, nicotine and opium contract the pupil whether taken internally or applied topically. All those substances which dilate the pupil arrest most of the secretions. Those substances which contract the pupil increase most of the secretions; except opium all the preceding substances act on the nervous structures in or near the eye.

Therapeutics

SALICYLATE OF SODA—COMPLETE BLINDNESS FROM ITS USE.—Dr. F. Gatti, (*Gazette Delgi. Ospit., London Medical Record*), reports a case of sudden blindness which lasted ten hours, and was induced by the medicinal use of salicylate of soda. The patient, a girl, aged sixteen, was suffering from acute articular rheumatism for which twelve and one half grains of the drug was given every hour for ten hours. At this time her articular pains were relieved, but she was seized with deafness, noises in the ears and complete blindness. The pupils were widely dilated and the sclerotic and cornea on each side highly sensitive. After perception of light had returned the mydriasis still continued. The ophthalmoscopic examination generally gave negative results. The ocular symptoms lasted about ten hours, but left no permanent impairment of sight.

POTASSIUM IODIDE AND CALOMEL IN OCULAR THERAPEUTICS.—(Schæfke. *Arch. f. Ophth.*, xxv, 2, p. 251., *Lyon Medical*, May 9, 1880), (1) The use of insufflations of calomel, while potassium iodide is given internally, gives rise to violent inflammation of the eye. (2 and 3) Potassium iodide can be very rapidly detected in the lachrymal secretion, even when given in six grain doses twice daily. (4 and 5) Calomel, only slightly soluble in pure water, is much more so in a saline solution like the tears. (6 and 7) The two salts present in the lachrymal secretion give rise to proto- and bin-iodides of

mercury which, acting as usual, cause an intense inflammation. (8) Hence the rule to avoid the local use of calomel in eye troubles, as long as iodine is present in the tears.

Obstetrics.

FISSURED NIPPLES.—(*N. O. Medical and Surgical Journal*, May, 1880).—Almost every physician has no doubt often felt that he would give a good, round sum, for what he could really call a remedy for this troublesome affection. Do what we will, the child must nurse, or the milk must be drawn with a breast pump, and, in either case the fissure is torn open and bleeds, and our case is as bad as ever. Dr. King had tried everything that he had ever heard recommended for the trouble, when one day walking into his office trying to think of something else to use, his eyes fell upon a bottle of "Prof. Callen's Brazilian Gum." It came to him like a revelation. It is pure gum in solution (in naphtha), and is of about the consistency of thick mucilage. When exposed to the air the solvent evaporates and leaves the elastic rubber adhering to whatever it has been applied. He applied it with a pencil all over the nipple (except the milk ducts), and over the areola around the nipple. It remained on three days, and came off leaving the parts entirely healed. This preparation or similar ones can be found at any dealer's in leather supplies.

WAXY DEGENERATION OF THE PLACENTA.—Dr. J. B. Greene, (*American Journal Obstetrics*, April, 1880), from a careful study of ten placenta, concludes: (1) The change in the placenta so productive of abortion and premature birth is a waxy and not a fatty degeneration as hitherto believed. (2) Among the ten placenta in waxy degeneration three only in the highest degree of this morbid change exhibited signs of fatty degeneration also, and this latter condition was always much less marked than the former. (3) The waxy degeneration consists in a peculiar chemical alteration in the myxomatous basis substance both in the decidua and the villous portions of the placenta. (4) The degeneration is kindred to that which occurs in the liver, spleen and kidneys of so-called dyscratic, or cachectic individuals. The protoplasmic bodies of the decidua and the villousities also enter the waxy degeneration in their fluid portion. The net work

of living matter is not affected by this change except in its higher degrees where the living matter completely disappears. (5) Fatty degeneration results from a chemical change of the living matter of the protoplasm at the points of intersection of the network—the so-called granules. At first the fat granules are joined to the neighboring reticulum by means of fine threads; afterwards the fat granules coalesce and produce fat globules. (6) Waxy degeneration of the placenta is sometimes combined with an analogous degeneration of the amnion and the umbilical cord. In the cord it appears in the form of a shining reticulum arising from the degeneration of the fibrous network of the myxomatous basis substance.

Gynecology.

TREATMENT OF EPITHELIOMA OF THE CERVIX UTERI (J. Marion Sims, M. D., LL. D., *Gaillard's Medical Journal*, June and July, 1880.)—Dr. Sims' article is lengthy and gives notes of several different cases. His method of operating is to remove with a curette all the diseased tissue; if the fibrous tissue does not yield to the curette then the scissors are used. All the diseased tissue should be removed in this manner quite up to the os internum; if necessary, bleeding is checked by the persulphate or perchloride of iron solution, applied on cotton and left in the excavated cone three or four days; then a solution of chloride of zinc of the strength of 3 v to the 3 i of distilled water is applied on cotton after the removal of the iron tampon. In either application the cotton must be pressed dry enough, so as not to drip down into the vagina, causing thereby, especially in the case of the zinc, a great deal of needless inflammation. This method is not new at present, but its more common use seems to demand more attention. The doctor draws the following inferences from the facts set forth in his paper: (1) Do not amputate or slice off an epithelioma of the cervix uteri on a level with the vagina, whether by the *écraseur* or by the electro-cautery. (2) Exsect the whole mass of diseased tissue even up to the os internum, if necessary. (3) Arrest the bleeding, when necessary, with a tampon of styptic iron or alum cotton-wool. (4) Be careful not to apply the tampon with such force as to lacerate the excavated cervix uteri. (5) When the styptic cotton is removed, cauterize the granulating cavity from which

the disease was exsected with chloride of zinc, bromine, sulphate of zinc or other manageable caustic capable of producing a slough. (6) After the removal of the caustic and the slough it produces, use carbolyzed warm water vaginal douches daily till cicatrization is complete. (7) After the cure, put the patient on the use of arsenic as a protection against the cancerous diathesis and urge the importance of examination every two or three months for the purpose of detecting any recurrence of the disease. (8) If fungous granulations or knobby protuberances not larger than a pea are found, lose no time in removing them, and treat the case afterward with caustic just as in the first instance. (9) Almost every case may be benefited by operation, even when there is no hope of giving entire relief.

Diseases of Women.

INVESTIGATIONS OF STERILITY.—(Cincinnati *Lancet and Clinic*, May 22—*Berliner Klinische Wochenschrift*, No. 13, 1880.) Dr. Kehrer has ascertained the cause of sterility in forty childless couples. He traced it to the husband sixteen times (40 per cent.) and to the wife twenty-four times. This result, which is not in accord with the views generally entertained, is the more remarkable and valuable as no choice was made of his cases for investigation. Of the sixteen cases of sterility due to the male, impotence was found to be the cause in two and azoospermia in fourteen. The latter was in eight cases due to a previous gonorrhœa with double orchitis. According to the author, the cause of this azoospermia is mechanical occlusion of the seminal canals, which results secondarily in extinction of the production of semen (The author's experiments upon rabbits showed that the secretory activity of the testicles ceases in from five to nine months after ligation of the vas deferens.) Among the twenty-four cases of female sterility there were eight (33.3 per cent.) with peritoneal adhesions, two with cervical stenosis and one each with uterine fibroma, amenorrhœa and vaginismus. In the remaining eleven cases, among which he found displacements and diseased conditions of the uterine mucous membrane and the parenchyma, it was questionable whether these anomalies really constituted the obstacles to conception; for the author proved by statis-

tics that of 425 women suffering from these same affections, not less than 82½ per cent. were confined in from 200 to 500 days after marriage. Sims' mechanical theory will, therefore, suffice to explain only the minority of cases of sterility. The author is inclined to consider the duration of copulation, the mechanical relations of the male organ with the vagina, the condition of the uterine muscular tissue, the state of the uterine and vaginal secretions during the act and the position of the woman after copulation, as of greatest importance in determining the result of intercourse.

Diseases of Children.

TYPHOID FEVER AMONG CHILDREN—(*L'Union Med.*, May 11, 1880).—In his essentially clinical lessons, Dr. Archambault insists upon the following particulars distinguishing the course of typhoid fever in children: The anatomical lesions are less in degree; intestinal ulceration occurs more rarely than in the adult, and hence intestinal hemorrhages and perforations are less frequent. On the contrary, visceral congestions are common, and particularly those of the lungs and meninges. The disease may occur at any age, but it appears particularly after nine years; before four it is seldom seen; it is more frequent in boys than girls (Barthez, Taupin, Archambault). The fever is less severe than in adults, is more frequently of a benignant form, and in many cases takes the remittent type; the morning temperature may be 100.5°, whilst at night it may rise to 103.1°, hence the possibility of being deceived, especially as its duration may be short—about two weeks; from a mild beginning the disease may become very grave, but most frequently the gravity of the case appears from the commencement, and if vomiting, constipation and cephalalgia co-exist, the difficulty of a diagnosis may easily be imagined. The headache is hardly complained of in typhoid fever, while in meningitis it is more fixed and violent. The thoracic form is more marked in childhood than in adult age (frequent lobular pneumonias, broncho-pneumonias, etc.). As proof of the lesser gravity of typhoid among children he recalls the fact that out of 150 such patients he had but thirteen deaths. In the treatment it is to be remarked that he prescribes Brand's method, since at that age it exposes the children to the rapid develop-

ment of pulmonary complications. He also cautions physicians against leaving blisters too long in position, since cerebral symptoms may thus arise.

RÖTHELN; ITS DIAGNOSIS.—Dr. W. D. Hemming (*Edin. Med. Jour.*), as diagnostic points separating rōtheln from measles and scarlatina, gives the following: (1) The temperature rarely rises above 101° to 102°. (2) The eruption generally appears at once all over the body. (3) Rōtheln affords no protection against either measles or scarlatina, and vice versa. (4) Rōtheln propagates itself and never gives rise to either measles or scarlatina. (5) The patches of eruption in rōtheln are raised above the surrounding skin, especially towards the centre, where the color is deeper. (6) The desquamation is in fine branny scales and commences at the centre of an eruptive patch, gradually extending to the circumference. (7) The patches of eruption are larger and brighter in severe cases than in mild ones. (8) The tongue is more or less dirty at first, then becomes strawberry like, and finally smooth.

Nervous Diseases.

NUMBNESS OF THE HAND.—Dr. Jas. J. Putnam (*Jour. Nerv. Dis.*, July '80), says that a large number of cases have come under his notice of a peculiar character. Differing in minor respects these cases presented, as a common symptom, disturbance of the subjective sensibility of the skin, giving rise to what was properly known as numbness recurring periodically, coming on especially at night or very early in the morning, and affecting one or both hands, either alone or in company with the arm, the legs or rarely the whole body. This numbness was very often excessively intense, so as to amount to severe pain, sometimes being associated with pain of a more or less neuralgic character, especially in the arms. In some cases simply letting the arms lie out of bed or shaking them about for some moments would drive the numbness away; in others it could only be done by prolonged rubbing. Most of the patients were women in middle life, and many of them were debilitated. A few marked cases were in strong men. Of thirty-one patients, twenty-eight were women, three men. None of these patients were below twenty years of age, and only six were over fifty. In most cases one hand

was worse than the other. He thought the symptoms were due to changes in the vascular supply of the peripheral nerves themselves, a contraction or dilation or both alternately of the vaso nervorum. In treatment, he had used galvanism, phosphorus, strychnia, bromides, cannabis indica, nitrite of amyl, and a few other remedies.

THE DIAGNOSTIC VALUE OF THE PUPIL IN EPILEPSY.—Dr. L. C. Gray (*Jour. Nerv. and Ment. Dis.*, July '80), says that in forty-nine cases of epilepsy observed by him, all but four had a dilated and mobile pupil. Of these four one was blind in one eye from advanced keratitis. The mobility and dilatation was usually in proportion to the inveteracy and violence of the disease. These observations applied only to cases of true functional epilepsy. By means of this symptom he had been enabled to make a diagnosis in several cases where the history was uncertain or he knew nothing about it. He was, therefore, almost willing to affirm that this symptom was pathognomonic, and he submitted it to the profession in the hope that it might prove of extended and certain application as he anticipated.

JUMPING FRENCHMEN OF MAINE.—Dr. Beard (*Jour. Nerv. Dis.*, July '80), says that in June last he visited the jumpers at Moosehead lake, and experimented with them, taking care to eliminate the six sources of error that complicate all experiments with living human beings. He found the actual facts to more than substantiate what had previously been told of them. One of the jumpers, while sitting in his chair with a knife in his hand, was told to throw it, and he threw it quickly so that it stuck in a beam opposite; at the same time he repeated the order to throw it with cry or utterance of alarm resembling that of hysteria or epilepsy. He also threw away his pipe while filling it with tobacco when he was slapped on his shoulder. Two jumpers, standing near each other, were told to strike and they struck each other very forcibly. One person when standing by a window, was suddenly commanded by a person on the other side of the window to jump, and he jumped up half a foot from the floor, repeating the order. When the commands are uttered in a quick, loud voice, the jumper repeats the order. When told to strike, he strikes, when told to throw, he throws whatever he has in his

hands. Greek or Latin words were repeated in the same way and accompanied by some violent muscular exertion. They could not help either the repeating of the command or the muscular effort. The sound might come from any source if only sudden, sharp and unexpected, as from a gun, falling of a window, etc. All the jumpers agree that it tires them to be jumped and that they dread it. He regards the disease as a trance-like state, a temporary trance, induced by reflex irritation and the emotion of fear. The phenomena were peculiar (*a*) in being temporary and momentary, and (*b*) in the persistence of the liability. These jumpers are modest, quiet, retiring, deficient in the power of self-assertion and push. They were strong, capable of hard, physical work, and some of them could read and write and were as intelligent as the class to which they belonged. Jumping was hereditary; there were fifteen cases in four families. Women were rarely jumpers. The disease was epidemic and restricted mostly to the northern part of New Hampshire, Maine and Canada. The disease was probably an evolution of tickling. There was no cure for the disease; once a jumper, always a jumper.

WATER AS A PROPHYLACTIC AND REMEDY IN NERVOUS DISORDERS.—Dr. S. G. Webber (*Jour. Nerv. and Mental Diseases*, July, 1880,) says that a large class of patients are affected with symptoms of an indefinite character, a vague unrest showing itself by discomfort or even pain, sometimes in one place sometimes in another; they are usually subject to constipation, often have an unhealthy hue of the skin; they are frequently classed as hypochondriacal or hysterical; there was no well-defined disease. It had long been his custom to inquire of patients thus affected as to the amount of drink they took and how much urine they passed. He often found the amount of drink much below the average; there was a tendency to dryness of the skin; the urine was scanty, high colored and strongly acid, sometimes depositing a sediment. Under the use of an increased amount of water the perspiration was increased, the urine became more natural and the unpleasant symptoms diminished or disappeared. The waste of tissue changes in the system must pass into the blood and could only leave the system in a state of solution. During comparatively good health

the amount of blood is maintained at nearly the same figure, and only as much water would be parted with through the skin, lungs and kidneys as could be restored from other sources. If too little was ingested the perspiration would be slight, the elimination of urine would be diminished and the excretion of waste material would be lessened. The blood would be continually saturated, or nearly so, with the results of disassimilation; the removal of the waste of tissue changes was not accomplished with sufficient regularity and the tissues became clogged with used up material and nutrition was interfered with. The balance each day against health was very slight, but after a time there was such an accumulation that unpleasant symptoms were developed. If the person continued to eat heartily either the surplus food passed off by the intestines or was deposited in the shape of fat, the nitrogenized portions assisting to load the urine with urea and the urates. If such a person drink a large amount more urine would be secreted, the loss made good to the blood by absorption and a larger amount of waste products would be taken up to be eliminated; more urea, phosphoric and sulphuric acids passed off by the urine which was increased in amount, and there was more disintegration of tissues. This last was made up by new material, so nutrition was increased. He has found that neurasthenic patients did not drink enough. He thought it an American peculiarity to ingest too little liquid. It is not to be expected that in all these cases the simple increase of fluids would cure our patients. Too frequently the tissues had been so long illy nourished that this simple plan of treatment would not suffice. The time to effect the best results was before disease fairly began.

MYELITIS TREATED BY STRYCHNINE.—Dr. J. S. Jewell (*Jour. Nervous Diseases*, July, 1880,) reported two cases of myelitis in which strychnia in large doses produced the best results. One case was that of a man who had spent his winter in Florida, and on his way north, while in Washington, became thoroughly chilled by a storm. On the following morning he found himself unable to put on his pants without stumbling and there was numbness. He could not walk well; he had some fever. He got into a sleeping car and came home. When Dr. Jewell first saw him he was unable to roll over in bed and

could not raise his arms or grasp the hand with sufficient strength to make it felt. Motor paresis was general and paræsthesias were widely extended. The man had been taking large doses of ergot, under the idea that the blood vessels would be contracted and thus relieve the patient. Instead of this he got worse. Dr. Jewell placed him upon large doses of strychnia and increased the amount almost up to toxic doses. The man so improved that he could walk. The doses finally administered were one-tenth of a grain three times a day. He only gave this drug in these cases when the fever had abated and left the temperature normal. In six cases he had commenced with one-thirtieth of a grain and run it up to one-tenth of a grain.

ACUTE ASCENDING PARALYSIS CURED BY LARGE DOSES OF HYPOPHOSPHITE OF SODA—(*Lyon Med.*, April 11, 1880).—M. Lépine communicated to the Lyons Medical Society the details of the case of a young man of 20, who, after having a paronychia, was attacked on December 20, 1879, with the first symptoms of an ascending paralysis. On January 28, 1880, when he entered hospital, the paralysis had reached the bulb; speech was much embarrassed, and the respiratory movements were very incomplete; briefly, the patient was about to succumb from asphyxia. Taking into consideration the extraordinary excretion of phosphoric acid which the patient disclosed on examination, M. Lépine ordered for him a very large dose of hypophosphite of soda. The following morning the progressive aggravation of the trouble had ceased, and from that moment a notable amelioration in all the symptoms gradually manifested itself. At the same time the excretion of phosphoric acid diminished.

PONS VAROLII—SPECIAL SYMPTOMS OF ITS ACUTE LESIONS.—These are given by Dr. W. R. Gowers (*The Brain*) thus: (1) The involvement in unilateral lesions of cranial nerves on the same side as the lesion. (2) The frequency of bilateral symptoms of paralysis in the cranial nerves and limbs; this depends on the fact that the motor tracts from the two sides are still here in contiguity and on the circumstance that both are supplied from one vessel, the basilar artery, which is an occasional seat of morbid processes—degeneration, syphilitic disease, thrombosis, embolism. (3) The implication of the centres which are situated at either extrem-

ity of the pons and which, by their irritation and paralysis, give rise to important localizing symptoms; in the upper portion of the pons is the centre of origin of the oculomotor nerves, irritation of which gives rise to the well-known contraction of the pupils, and damage to which may cause an equally important paralysis of the irides and ocular muscles. At the lower extremity of the pons are the centres which influence respiration, deglutition, convulsion, etc. Lesions which destroy these rarely leave time for diagnosis, but their irritation furnishes us with most important diagnostic indications. (4) The occurrence of hyperpyrexia, which appears to ensue from acute bilateral lesions irrespective of their character. (5) The occurrence of glycosuria, which, probably, is found only after the acute process is over and has in diagnosis only a corroborative value.

LESIONS OF CUTANEOUS NERVES IN ECTHYMA—(*L'Union Med.*, May 4, 1880).—M. Leloir removed from the body of a man who had just died from general paralysis, some pustules of ecthyma and examined the cutaneous nerves contained in the specimen. Beneath the pustules and for a distance of one centimeter around them the nerves appeared changed in the proportion of two or three out of ten. The alterations consisted in segmentation of the myelin, disappearance of the cylinder-axis, swelling of the nuclei, and in the appearance of a substance which was colored yellow by the picrocarminate of ammonia. These lesions are exactly similar to those found in pemphigus by M. Déjerine.

SOFTENING OF THE BRAIN—GENERAL MENTAL SYMPTOMS.—Dr. J. H. Jackson in a recent paper (*Amer. Practitioner*) gives these thus: The patient who is hemiplegic begins to "wander," although for some time he can pull himself together, clearing his mind of his fancies and can reply to ordinary questions correctly. The mental symptoms are of a general character. There is not the loss of one faculty in particular, but the reduction of the whole mind towards an automatic condition. The patient's mind wanders to the ordinary occupation of his life, as about his business or occupation, about the persons or places to which he is accustomed; that is those which are most automatic to him. He imagines he is doing his work and may take stran-

gers for those persons to whom he is accustomed. There is a lowering of the brain power generally. Of course, much depends upon the kind of brain the patient had before his illness. Old drunkards have more absurd delusions, illusions and hallucinations than persons who have not abused their nervous system. He thinks that this mental state results rather because the brain power is reduced along with the system generally, than caused by the very local disease in the brain. They are indeed the active symptoms of debility, just as palpitation of the heart is an active sign of debility in dilatation of the ventricles. In general practice very active mental symptoms (delirium) are rarely ever associated with primary disease of any sort. Of necessity they imply something wrong in the brain, but the brain is suffering secondarily.

FORMS OF SLEEPLESSNESS CLINICALLY CONSIDERED.—Dr. J. S. Jewell, (*Chicago Journal Nervous Disease*), says that clinically considered there are three forms of sleeplessness. (1) That which depends chiefly upon cerebral hyperæmia. The occurrence of this form of the disorder depends either upon some change in the walls of the muscular vessels within at least certain vascular areas of the brain whereby their contractile power is diminished, the vessels relaxing, or losing their tonus and giving way to the expansive pressure of the blood which passes through them, or the hyperæmia may depend upon some disease of the vaso-motor nervous apparatus upon which the vessels in question depend, the disease of the vaso-motor apparatus being of such a kind as to render it incapable of responding to those excitations which are supposed to descend from the cortex as results of its fatigue or exhaustion. My supposition is that in the process of cerebral activity the wear and tear of the cortex in certain parts reaches a point where irritation sets in. This may arise out of the simple process of nutritive waste, or be caused by fatigue products. But at any rate as a result of prolonged cerebral activity certain regions of the brain become fatigued and irritated. From these points excitations descend by means of fibres to the vaso-motor apparatuses already referred to, which in turn act responsively in a reflex way upon the vessels of the brain causing their contraction and hence the degree of anæmia that is needful for brain rest. When brain exhaustion arrives at a

certain pass it sets in play the vaso-motor mechanism, the action of which upon the circulation of the brain leads to sleep or brain rest at the time when it is needed. Now if by reason of some incapacity of the muscular tissue in the vessels to adequately respond to the impulses which reach them by way of their nerves, or if the vaso-motor apparatus itself should be exhausted, or disordered, then sleep would either occur imperfectly or not at all, notwithstanding brain exhaustion may have arrived at that pass which makes brain rest necessary. In this way sleeplessness occurs in connection with hyperæmia. The natural mechanism for bringing about sleep in the manner already described is crippled or inefficient. Artificial means are therefore necessary. Such we have in the bromides, ergot, cold to the head, the use of purgatives, in the upright posture, in the protracted warm bath, etc. (2) We have sleeplessness coupled with abnormally increased cerebral irritability. It may be present not only in cerebral anæmia, but in cerebral hyperæmia. But it is of the utmost practical importance to recognize it, for in such cases those remedies which are adapted to cases of sleeplessness from hyperæmia will be unsuccessful and may even aggravate the insomnia. In such cases chloral hydrate, opiates and stimulants are indicated. (3) Other cases of sleeplessness depend upon unpleasant physical conditions such as severe pain, great difficulty in breathing, unusual external circumstances.

CEREBELLAR AFFECTIONS — THEIR DIAGNOSIS.—Nothnagel (Abstract in *Journal Nervous Diseases*) concludes an exhaustive study of the above subject, thus: (1) Cerebellar affections may remain entirely latent and defy diagnosis. This is regularly the case with permanent or destroying lesions located in one hemisphere. (2) Space limiting lesions may, on the other hand, produce extraordinarily manifold and complex phenomena. (3) As characteristic of cerebellar disease we reckon only disturbances of coördination, especially a sort of reeling gait with severe vertigo. Nevertheless these symptoms are also present in other central nervous affections, and cannot therefore be regarded as pathognomonic here. The presence of cerebellar diseases must rather be assumed from the sum of positive and negative symptoms. (4) Cerebellar reeling always indicates a functional implication of the middle lobe,

whether this be the original seat of the disease, or whether it is only embarrassed by some crowding or pressure lesion. (5) On the other hand disorders of coördination and vertigo may be wanting in pronounced disease located chiefly in the two hemispheres; exceptionally it may be lacking in tumors localized directly in the vermis, but of slow growth. If an affection situated in the posterior cranial region, below the tentorium, is suspected on other grounds in these cases the diagnosis of original or secondary disease of the cerebellum can be only approximative. (6) Vomiting, when continuous and severe, may support the diagnosis of cerebellar affections, but is not conclusive, since it happens in other cerebral diseases. It is lacking altogether in cases of destroying lesions, and is by no means regular in its occurrence in crowding lesions. (7) The same is true of amblyopia and amaurosis respectively, choked disks and optic neuro-retinitis. Headache is only present in crowding or pressure lesions. Its fixed locality in the occipital region under certain circumstances may suggest cerebellar disorder, but is no more conclusive in this respect than its location in the frontal region would be an opposing sense. (9) The most varied disturbances in the functions of cerebral and spinal motor and sensory nerves may attend cerebellar disease, but only in case of pressure lesions. They have, therefore, no diagnostic value, but are liable to mislead. Nevertheless, sometimes some one symptom may be isolated which will permit a closer local diagnosis. Thus, complete right-sided paralysis of the whole facial indicates the seat of a tumor on the right side and pronounced hemiplegia its location on the under surface. (10) Psychic disorders are lacking, except under circumstances in which they may accompany any lesion of the brain whatever. Nevertheless, they are, perhaps, a regular phenomenon in general atrophy of the organ.

Dr. Strauss says that a differential diagnosis of central from peripheral paralysis of the face may be made as readily by the use of jaborandi as by the constant current. In using the latter, if the disease be central, the muscles in the paralyzed locality contract; they fail to contract if the facial nerve be involved. When jaborandi is given, if the affection be central, sweating occurs on both sides of the face. If the nerve trunk be diseased, no sweating occurs on the paralyzed side.—*Canada Med. and Surg. Journal.*

PONS VAROLII—DIAGNOSIS OF ITS LOCAL LESIONS.—Nothnagel (Abstract in *Journal Nervous Diseases*), gives the following conclusions: (1) Stationary intra-pontine destroying lesions may produce disorder of the functions of the motor, sensory and vaso-motor nerves of the extremities, the 5th, 6th, 7th, 8th, (?) 11th (?) and 12th cranial nerves. Pressure lesions may also produce symptoms implicating the 9th and 10th nerves. (2) The number of nerves involved varies widely in different cases, according to the size and seat of the lesion. Still we are not yet able to say with certainty, from the nerves involved, what part of the pons is injured. (3) In many cases, stationary lesions of the pons produce the same series of symptoms as some of those in the cerebrum and cannot be distinguished from them. (4) Dys- and anarthria are more frequent with lesions of the pons than with other localized lesions, excepting those in the medulla oblongata. They point with a certain probability to the lesions in the pons. (5) Lesions of the pons destroying lesions and tumors alike have an altogether peculiar character in the presence of alternate paralysis. This forms, when present, the most important diagnostic mark. Nevertheless it is not pathognomonic, since it may occur in basal affections. But in the latter case, we have to do with slow, chronic affections, tumors, meningitis, etc. A sudden appearance of this symptom indicates almost certainly a lesion of the pons. (6) This alternate paralysis involves the motor and sensory nerves of the extremities of the side opposite the lesion and the trigeminus abducens facialis and the hypoglossus nerves on the same side. Within these limits the form of the paralysis may vary widely in different cases. (7) The paralysis of the extremities, motor as well as sensory, is always contra lateral with the lesion; the implication of the cerebral nerves mentioned under six may be sometimes crossed and sometimes on the same side. (8) Whether a conjugate ocular paralysis of the external rectus on one and the internal rectus on the other side is characteristic of a lesion of the pons is still uncertain. (9) It is true that anaesthesia is proportionately more frequent with lesions of the pons than with those of the cerebrum; nevertheless it is not of diagnostic value. As regards the implication of special nerves, that of the abducens, if on the same side as the lesion of the brain indi-

cated by the other symptoms, indicates almost certainly its location in the pons. (10) Difficulty in swallowing has only a limited value for diagnosis; it may in given cases assist it, but cannot be its foundation. The same is also true of disturbances of respiration and of circulation. (11) Ataxia appears in a few rare cases of affection of the pons, and it would, therefore, not contra-indicate their diagnosis as such. Still, it has been as yet so rarely observed and is so much more frequent in cerebellar disease, that its presence does not stand in the first line of symptoms of disease of the pons. (12) General epileptiform convulsions have a certain diagnostic value only in cases of recent hemorrhages or embolisms. They are wanting in stationary tumors or lesions. (13) Sensory phenomena do not belong to the probable symptoms of affections of the pons, and as yet there have been too few observations as regards the auditory nerve. Still, the appearance of unilateral disturbance of hearing must be taken into consideration in forming a diagnosis. Contracted pupils, when present in an apoplectic attack, possibly point to the pons. (14) Vomiting, headache and vertigo are present in cases of pressure lesions of the pons under the same conditions in which they appear in the brain.

Ophthalmology.

ENUCLEATION OF THE EYE-BALL FOLLOWED BY SYMPATHETIC OPHTHALMIA.—Mr. Nettleship (*Brit. Med. Jour.*, April 17, 1880,) reports three cases, and alludes to six others. Case I. Extraction of a fluid, shrunk cataract with corneal nebula, the result of ophthalmia neonatorum from the eye of a phthisical man aged 20. Intra-ocular hæmorrhage forty-eight hours after the operation. The eye was excised ten days after the operation, no sympathetic symptoms being then present and the orbital parts healed as usual. The excised eye was examined microscopically; inflammatory changes were found in the choroid, optic nerve and retina, but the ciliary nerves showed only doubtful changes. Twenty-two days after excision (thirty-two after the cataract operation) the sympathetic disease began with failure of sight. When seen a week later there was neuro-retinitis, and shortly afterwards severe irido-cyclitis set in. The eye became glaucomatous, and in spite of a free iridectomy made six months after the outset it finally became blind. A

prolonged mercurial course with cod-liver oil, etc., and all the useful local measures had been first tried. Of the other cases the sympathetic inflammation began, in one case twenty-three days after the enucleation, in one twenty-five days, in one eight days, in one forty-one days, in one four days, in one a few days, in one five days and in one two or three months. These cases are of interest in connection with Knies's recent researches by which he shows that there is a direct continuity of the inflammatory affection of both eyes. Hence, if the disease has extended along the optic nerve beyond the point of extension there is no reason why it should not extend along the chiasma to the other eye.

DUBOSIA : ITS VALUE IN OPHTHALMOLOGY.—Dr. S. D. Risley (*Medical Herald*) gives the following as the results of some careful studies made with this drug: (1) In solutions not stronger than two grains to the ounce, duboisia sulphate is free from danger. (2) That the two grain solution of duboisia sulphate more rapidly paralyzes the ciliary muscle than a four grain solution of atropia sulphate. (3) The duration of its effects is less than half that of the atropia sulphate. (4) The preparations now in the market are more liable to irritate the conjunctiva than neutral solutions of sulphate of atropia. (5) In the treatment of inflammations of the eye duboisia is quite as useful as atropia, and may therefore be used as a substitute.

SYMPATHETIC OPHTHALMIA : ITS PATHOLOGY.—Hitherto it has been almost universally held that in the so-called sympathetic ophthalmia the diseased process is transmitted from the morbid to the normal eye through the ciliary nerves. In studying the histology of a case of iritis serosa. Max Knies (*Archiv Ophthalmology*, June, 1880), reaches the following results of great importance: He found all parts of the eye more or less altered. The seat of the disease is in the uvea, but we can demonstrate its continuous propagation through choroid, papilla and optic nerve, along the chiasmata to the affection of the other eye, a process, which up to this time, was only known of certain gliomata. The exuded cells in the case under consideration showed certain peculiarities, due either to the disease or general constitution of the patient. Iritis serosa in common with glaucoma affects the region of the insertion of the iris, and causes great variations of ocular

tension. We cannot, hereafter, unconditionally refuse to accept a continuity in other double uveal affections which begin with neuritis and do not occur simultaneously.

NEAR SIGHT—ITS APPEARANCE AND PROGRESS.—Dr. H. Derby (*Boston Med. Jour.*, June 3, 1880), gives the following summary of our knowledge on the above subject. Near sight is not generally found at all among children who have not commenced school life. Between the ages of six and seven some three school children in a hundred are found in this country to be near-sighted. This percentage increases steadily and at the age of twenty at least twenty-six in a hundred are thus affected. The percentage rises to forty-two in Russia and to sixty-two in Germany. Other things being equal, the children of near-sighted parents are more apt to acquire near-sight than are those whose parents have normal vision. The development of near-sight is furthered by the following: (a) Work by inefficient light. (b) Work on minute objects, such as fine print, intricate maps and the like. (c) Work in a constrained or stooping position. (d) Continuous study. (e) Prolonged and excessive study. Thus Erismann found that of four thousand three hundred and fifty-eight scholars studying out of school hours, (1) of those studying two extra hours seventeen per cent. were near-sighted; (2) of those studying four extra hours twenty-nine per cent. were near-sighted; (3) of those studying six extra hours forty per cent. were near-sighted.

DISEASES OF THE EYE OCCURRING WITH PREGNANCY.—Mr. Henry Power (*London Lancet*) classifies the diseases of the eye that he has noticed during pregnancy as (1) affections depending upon general anæmia and exhaustion; (2) those consequent on some special lesion of the nervous system; (3) those depending upon or associated with albuminuria. Among diseases attributable to exhaustion the most common are ulcers of the cornea, which may arise from slight injury or be spontaneous. They are often central, slow in their progress and not dangerous usually. Their treatment consists of rest and tonics. During lactation a more dangerous form of ulcer is often met with, requiring often paracentesis of the cornea. The power of accommodation is often impaired during pregnancy from enfeeblement

of the ciliary muscle. Glasses and tonics are the remedies for this. There is, further, an increased tendency to lachrymal abscess and to the development of cataract. Retinal affections are almost limited to cases of albuminuria. Hæmorrhagic glaucoma and military hæmorrhages occasionally take place.

GALEZOWSKI'S OPHTHALMIC PRACTICE.—This is given by Parent (*Recueil d'Ophthalmologie*—London *Medical Record*), thus: In trichiasis, complicated with deformity of the tarsal cartilage, he uses the thermo cautery, which he carries through all the tissues down to the cartilage. The subsequent retraction generally restores the cilia to their normal positions, and also straightens the lid. Ciliary blepharitis is treated either by applications of tincture of iodine or by cauterization with pure nitrate of silver, the excess of which is neutralized by chloride of sodium. Granular lids are dealt with by excision of the conjunctival cul-de-sac. This treatment has considerably shortened the length of time which the cure of such cases hitherto demanded. In a bad case of gonorrhœal ophthalmia the following treatment was successful, viz.: Leeches, nitrate of silver ointment and a light cauterization with a two and one-half per cent. solution of the same salt. Complete staphylomata of the cornea are always amputated. A thread is passed through the conjunctiva all round the protuberance and in this way any escape of the vitreous humor is prevented. Injections of nitrate of pilocarpine are largely used in extravasations into the vitreous body, and have apparently considerably shortened the duration of the affection.

GALEZOWSKI'S OPERATION FOR CATARACT.—Parent (*Brit. Med. Jour.*) gives this as follows: He forms a flap with the upper third of the cornea by making the incision quite close to the sclerotic and combining it with iridectomy. The opening of the capsule is effected with a knife. The eye operated on is immediately bandaged, and a lotion of one per cent. solution of boric acid is applied. The bandage is removed after twenty-four hours, and if the anterior chamber be re-established the eye is simply sheltered by a floating shade during the day and the bandage is re-applied for the night. The same treatment is continued for some days afterwards, and if all goes well the bandage is entirely removed and the eye

protected by a veil. The results are said to be all that could be wished.

Otology.

TREPANNING OF THE MASTOID PROCESS—WHEN SHALL IT BE DONE?—Dr. F. C. Holtz (*Archiv. Otology*, June, 1880), answers the above inquiry thus: When in the course of an acute purulent otitis media the mastoid region becomes implicated by pain, redness, swelling and tenderness to the touch, and these symptoms are not speedily relieved by leeches and poultices, an exploratory incision should be made down to the bone. If marked symptoms of acute periostitis are found, our surgical interference shall end with the incision. But if the periosteum is found of firm texture, normal thickness and strongly adherent to the bone, the incision should immediately be followed by the perforation of the bone.

FUNCTIONS OF THE EUSTACHIAN TUBE.—Dr. T. F. Rumbold (*St. Louis Med. Jour.*), gives, as the result of his observations upon the above subject, the following: (1) During the act of deglutition the eustachian tube is not an open passage into the tympanum. (2) The walls of the eustachian tube are constantly in slight contact. (3) The air continuously permeates the eustachian tube into the tympanic cavity. (4) The air in the normal tympanic cavity is not of equal density with that of the surrounding atmosphere, the air in the tympanum being rarified. One of the functions of the eustachian tube, may be the principal one, is the maintenance of this inequality of air density. (5) The rarified condition of the air in the tympanum is the cause of the uniform concavity of the membrana tympani. (7) A certain degree of uniform pressure on the fluid in the internal ear by means of the membrana tympani and the small bones of the ear is essential to normal hearing.

Public Health.

CONTAGIA COMMON TO MAN AND ANIMALS.—James Law, professor of veterinary medicine in Cornell University, (National Board of Health *Bulletin*, July 24) gives a list of these contagia as follows: Glanders and farcy in horses, etc., canine madness, rabies in dogs, cats, etc., malignant anthrax in all domestic animals, tuberculosis in all animals, Asiatic cholera in all animals, milk sickness

in cows and other animals, small-pox in chickens, pigeons, etc., eczematous fever in bisulcates, etc., typhoid fever in sucking animals, diphtheria in animals.

PARASITES COMMON TO MAN AND ANIMALS.

—*Echinococcus* in animals, *tænia echinococcus* in dogs; *cysticercus cellulosus* in swine, *tænia solium* in man; *c. medio-cannellata* in calves, *t. medio-cannellata* in man; *c. termincollis* in man, sheep, etc.; *t. marginata* in dog; *tænia elliptica* in man and cat; *bothrioccephalus latus* in man, dog, etc.; *b. cordatus* in man, dog, etc.; *trichina spiralis* in swine, etc.; *trichoccephalus dispar* in man and pig; *strongylos gigas* in man, horse, ox and dog; *ascaris mystax* in cat and human being; *fasciola hepatica* in man, herbivora and omnivora; *distomum lanceolatum* in man, herbivora and omnivora; *pentastoma tænioides* in man, dog, sheep; *sarcoptes mutans* in chickens and man; *demodex folliculorum* in dog, sheep and man; *æstrus bovis* and other cuticollæ in cattle and man; *gregarina* in man and animals; *achorion schönbeni* in man and animals; *microsporon adonini* in man and animals; *oidium albicans* in man and animals.

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Physiology.

THE TRANSFER OF SENSIBILITY. — Dr. Brown Sèquard, (London *Lancet*, August, 1880), contributes some interesting experiments on this subject. In dogs, guinea-pigs and rabbits he found by dividing one-half of the pons varolii immediately behind the middle cerebellar peduncle that usually the effect was the same as that from division of half of the spinal cord—more or less considerable hyperæsthesia on the side of the lesion and more or less marked diminution of sensibility on the opposite side. He then divided the opposite half of the spinal cord at the level of the sixth dorsal vertebra, and quickly found that after this second lesion the corresponding hind limb which had lost sensibility after the cerebral lesion was not only sensitive but hyperæsthetic, while the other limb hyperæsthetic after the lesion of the pons became anæsthetic after the second lesion. The hyperæsthesia in the limb on the side of the spinal lesion was as marked as in an animal in which the same section had been made without any previous lesion of the pons. Other experiments with clinical observations showing that anæsthesia due to organic lesions of the brain is cured by gal-

vanic currents, seem to indicate that we must reject the notion that the anæsthesia produced by an encephalic lesion necessarily depends on the alteration or destruction either of perceptive centres, or of conductors transmitting the sensory impression to these centres. He explains the results obtained by the action of inhibitory centres upon the sensory elements of the spinal cord. His conclusions are: (1) We have no right to infer from the appearance of anæsthesia after an encephalic lesion that the conducting tracts, or sensory centres are injured. (2) In spite of his early observations which seemed to prove a decussation of the sensory part in the spinal cord, this theory must be discarded. (3) One-half of the pons suffices to conduct the sensation from both sides of the body.

LIFE OF SPERMATOOZOA IN UTERO. — Harry L. Sims, M. D., (*Western Lancet*, May, 1880), states that he has found living spermatozoa in the uterus of the human female thirty-six hours after coition had taken place, and also avers that his father, Dr. Marion Sims, has found them living equally long in the healthy uterine mucus. The presence of the spermatozoa is determined by actual microscopic examination.

METHOD FOR OBSERVING THE CIRCULATION OF BLOOD IN MAN. — Dr. C. Hüter, (*Centralblatt f. die Med. Wiss.* — *The Practitioner*, May, 1880), gives the following description of his method of studying the flow of blood in the human being. The patient's head is fixed in a frame something like that used by photographers on which is a contrivance for supporting a microscope and a lamp. The lower lip is drawn out and fixed by means of clips upon the stage of the microscope, with its inner surface upwards; a strong light is thrown on the surface by a condenser and the microscope, provided with a low power objective, is brought to bear upon the delicate network of vessels which can be seen in the position indicated even with the naked eye. The appearance presented is at first as if the vessels were filled with red injection. But by focusing a small superficial vessel, the observer is soon able to distinguish the movement of the blood stream, rendered evident by the speck like red corpuscles, the flow of which in the corkscrew like capillaries is said to be especially beautiful. The colorless corpuscles are distinguishable as minute white

specks occurring now and again in the course of the red stream. Besides this can be seen the cells of pavement epithelium lining the lip, their nuclei and the apertures of the mucous glands. Various pathological conditions can be studied—the phenomena of stagnation—the results of applying certain reagents, the variation of the corpuscles, etc

MALE AND FEMALE HEADS—THEIR MEASUREMENTS.—Dr. J. S. Wright, (*Archives of Medicine*), from a careful study of male and female heads, concludes: (1) The brain of the educated male has a comparatively greater volume in the anterior part of the cranial cavity than the brain of the educated female. (2) The brain of the uneducated male has a comparatively greater volume in the anterior part of the cranial cavity than the brain of the uneducated female. (3) The volume and form of the brain of the uneducated male somewhat nearly resemble the volume and form of the brain of the educated female. (4) While, in regard to the relations of education there is greater variation in the development of the anterior part of the brain of the female than the male, it may be remarked that the difference between the lower female brain and the higher male brain is very considerable. (5) The brain of the female shows as great a capacity for development by education as the brain of the male. Under similar circumstances of mental work, hereditarily, the female brain would fully equal the male brain. (7) There can be no question that females ought to receive a higher education. (8) One cause of the deterioration of the race is the lowly condition of the female. (9) One cause of the amelioration of the race is found in the better brain development of the female. (10) The female should have a higher education in the interest of herself, the male and the well being of the race. (11) An abundance of historical evidence can be adduced to show the soundness of these general propositions, that have been drawn from careful comparative measurements and calculations. (12) The above conclusions will be supported by the facts of imperfect development operating as causes of diseased conditions.

DEXTRAL PREFERENCE IN MAN.—Dr. J. A. Wyeth, (*Annals of Anat. and Surg. Society*, April, 1880), from a discussion of this subject concludes: (1) Man is right handed by preference as a result of his anatomical develop-

ment. (2) The arrangement of the embryonic protoplasmic elements is such that the liver developing on the right side greatly outgrows its opposing viscus the spleen, and pushes the heart to the left of its original position in the median line, causing an obliteration of one of the two originally symmetrical arches of the aorta and an obliquity of the remaining one. (3) This loss of symmetry involves an arrangement of the great vessels of the neck and upper extremities, by which the artery carrying blood to the right arm is more favorably situated and receives more blood than the one to the left arm, while the left carotid and vertebral arteries supplying the left half of the encephalon which presides over motion on the right side of the body are more favorably situated and convey more blood than the two vessels which have the same distribution on the opposite side. (4) This fact accounts for the development of the left half of the brain in excess of the right. (5) It is not the slight excess in weight of the viscera of the right side of the abdomen which is given by some to be the cause of right handedness, who argue from this that a man must lean to the left, i. e., balance himself upon the left by leaving the right extremities freer for action. It is a matter of cubic inches of bulk in fact of cardiac displacement. (6) Education, training by persistent effort will overcome the natural tendency to dextral preference and will render the individual more clever with the non-preferred hand, more equally adroit with both sides of his body, more symmetrical in muscular growth; will tend to equalize the two halves of the brain, giving a better cerebral development, and will consequently render him more serviceable to society himself.

Pathology.

CASE OF DOUBLE COLON IN A CHILD EIGHT YEARS OF AGE.—John M. Alexander, M. D., (*Cincinnati Lancet and Clinic*, June 5, 1880,) reports this case: A boy, eight years, four feet and four and one-half inches in height, died after a somewhat precarious existence during the period of his life—as he had been an invalid from birth—and because of the strange symptoms that had manifested themselves during his life, symptoms that were really unaccountable on any ordinary supposition, was made the subject of a post-mortem, when it was found that there exist-

ed a double colon, *i. e.*, the first or true colon in normal position, then doubled on itself so as to duplicate itself in reverse order back to the caput coli, when it made a flexure and terminated in the rectum. The whole length of this nondescript colon was six feet. It varied in size from four and one-half inches to eight inches in diameter. The lower and larger part formed a pouch which, when cut open, was found to contain three gallons of impacted feces. This enormously distended gut was found to have no circular muscular fibres, and there was a complete absence of villi, and the thinness of the walls bordered on rupture. At the base of this large sac were found great numbers of tubercles. The internal lining, a semi-serous coat, was slightly congested. The apices of both lungs were found to have tubercles. The immediate cause of death was asphyxia from the pressure upward of this enormous gut and its contents.

A MICROSCOPIC STUDY OF ABSCESS OF THE BRAIN.—Dr. H. G. Beyer (*Jour. Nerv. Dis.*, July, 1880) presents a careful study of the above named subject. He concludes as follows: (1) The grey substance of the brain, by the inflammatory process, is transformed into inflammatory or medullary elements, in the production of which the nuclei and ganglionic bodies also share. Non-medullated nerve fibres, through an increase of living matter in the axis cylinders, are likewise transformed into medullary elements. The same results are produced in inflammation of the white substance of the brain after the dissolution of the myeline. (2) The medullary elements, sprung from the grey or the white substance of the brain, are transformed into connective tissue, either myxomatous or fibrous, and thus the wall of an abscess in the brain is the result of the reduction of the brain tissue, first into medullary corpuscles, next into myxomatous, and lastly into fibrous connective tissue. (3) Medullary elements, irrespective of the particular nerve element from which they originate, when broken apart constitute pus corpuscles, and, therefore, the contents of an abscess of the brain. In the fluid of the abscess clusters of protoplasmic bodies are seen, proving a transformation of ganglionic elements into pus cells by a process of endogenous new formation and subsequent division of living matter. All the stages of this process are

observable within the ganglionic elements of the inflamed grey substance itself. (4) The endothelia of the blood vessels become enlarged, coarsely granular and proliferating in the process of inflammation of the brain tissue. New blood vessels are formed in the wall of the abscess. A consolidation of the blood vessels, on the contrary, and a breaking up of their endothelia into medullary elements, and afterwards pus corpuscles, takes place whenever the tissue is destroyed by suppuration. Pus is mainly a product of the inflamed tissue itself, and not of migrating colorless blood corpuscles.

Laryngology.

THE THERAPEUTIC VALUE OF REST IN THE TREATMENT OF THROAT DISEASES.—Dr. B. Robinson (*Med. Record*, July 24), calls attention to the fact that in acute laryngitis the voice should be kept absolutely still, the respiration should be as quiet as perfect repose of body and mind will permit, and there should be no injudicious attempt made by the patient to use the voice even for the smallest home concerns. In chronic laryngitis a problem of a different sort is offered. The main thing to be kept constantly in view is to change the static engorgement of the tissues into a more active circulatory condition and then to watch and guide this to a normal state. The last traces of chronic congestion and thickening are slow to disappear, but here again physiological rest is almost the only reliable means of cure. In nervous affections of the larynx, rest by itself may be curative. Again, ulcerative phthisical laryngitis has been cured more than once by wearing a tracheal canula during several months, thus giving rest to the laryngeal tissues. In morbid growths of the larynx there is reason to believe that the rest afforded by tracheotomy would be serviceable. In cases of traumatic injury to the larynx, with or without subsequent oedematous infiltration, it is marvelous to note the good effects of tracheotomy, and consequently of rest, to the larynx, and of freedom from irritating contact with air. Physiological rest is often attainable by the employment of medicines topically applied within the larynx. Whenever called upon to treat laryngeal troubles, we should bear in mind that the production of physiological rest is the curative principle upon which most of the good effects attributed to other means, medicinal, surgi-

cal, hygienic, in the main depend, and we should then be willing to give it its genuine value.

TRACHEAL TUBES INTRODUCED BY THE MOUTH INSTEAD OF THROUGH AN ARTIFICIAL OPENING.—Dr. Wm. MacEwan (*Brit. Med. Jour.*, July 31, 1880) reports four cases in which he used tubes in this manner with great satisfaction. From them and a study of the writings of others, he concludes: (1) Tubes may be passed through the mouth into the trachea, not only in chronic, but also in acute affections, such as œdema glottidis. (2) They can be introduced without placing under anæsthetic. (3) The respirations can be perfectly carried on through them. (4) Deglutition can be carried on during the time the tube is in the trachea. (5) Though the patient at first suffers from a painful sensation, yet this passes off and the parts soon become tolerant of the presence of the tube. (6) The patient can sleep with the tube *in situ*. (7) The tubes in these cases at least are harmless. (8) The ultimate results are rapid, complete and satisfactory. (9) Such tubes may be introduced in operations on the face and mouth in order to prevent blood from gaining access to the trachea, and for the purpose of administering the anæsthetic; and they answer this purpose admirably.

Surgery.

WOUNDS FOLLOWED BY SCARLATINA.—Riedinger (*Centralbl. für Chir.—N. Y. Med. Jour.*, May, 1880,) gives nine new cases of the appearance of scarlatina immediately after wounds, and answers many interesting inquiries. The opinion that the scarlatina is but an accidental complication may hold in some cases but not in all, several of the persons whose cases are here given having been exposed many times previously without being affected till the time of injury. As to whether the wound is received in these cases before the scarlatina infection, or *vice versa*, the writer believes both to be possible, but he does not think the opinion of Paget that the infection always precedes the wound is true at all, the time of incubation in some of those he has observed being entirely too long. He believes, however, that an infection which would not be sufficient to cause an outbreak in a healthy man will do so when one is suddenly prostrated by the addition of an injury. In the reported cases the

period of incubation after the wound ranged from two to fourteen days. The opinion of Murchinson is quoted, that scarlatina is a disease of short incubation, seven days being the longest. He has observed one case of eighteen hours, and Trousseau mentions one from seven to eight hours. Whether the infection enters by the mouth or by the wound the author was unable to determine. The eruption often appears first at the wound.

ABDOMINAL SECTION FOR PURPOSES OF DIAGNOSIS.—J. H. Stallard, M. R. C. P. L., M. R. C. S., London, (*Western Lancet*, May, 1880) undertook to make, and actually made an abdominal section to remove, if possible, a tumor which was situated in the left hypochondriac region, and was growing rapidly. The operation was made under the antiseptic spray and with all the antiseptic precautions. The tumor was found to grow from the root of the mesentery in front of the great vessels, and did not have any distinct pedicle. It could not be removed, and no name is given to the tumor, but the wound made in the abdomen closed without any hindrance or even suppuration, showing that advance is being made in means of diagnosis, and hopefully in the direction of abdominal section.

AN UNDESCRIBED FRACTURE OF THE FIBULA.—(*Cincinnati Lancet and Clinic*, May 15, 1880.)—M. Duplay recently brought before the Société de Chirurgie of Paris, two cases of an undescribed form of fracture of the upper extremity of the fibula. Both the men had been caught in a leather driving band. Above the situation of the upper end of the fibula was a bony projection contiguous to the tendon of the biceps and immovable. Below there was a manifest depression. There was then detachment of part of the head of the fibula. The diagnosis was very clear in both cases; in one case, at each turn which the driving band caused him to make, the outer side of his leg struck against the wall. In one of the men, who had many fractures, there was complete paralysis of the extensor of the foot and the lateral peroneals, dependent on a lesion of the external popliteal. The second patient died suddenly without our being able to find at the autopsy, the cause of death. We had not had time to remark in him paralysis of the muscles of the antero-external region of the leg. In the specimens exhibited from

this patient, the nerve is seen to turn around the fractured extremity of the bone, so that it must have been included in the lesion. In the first patient, it is probable that osseous union will be impossible, but that nevertheless, the functions may be re-established; it does not appear likely to be the same with the paralysis. The patient left the hospital some months after with the paralysis remaining and has been heard of since as being in the same state.

INTRA CAPSULAR FRACTURE OF THE NECK OF THE FEMUR.—Dr. J. H. Taggart (in the *Pacific Medical and Surgical Journal*) reports the case of a young man, about 29 years old, who had suffered an intra-capsular fracture of the neck of the femur. He seemed to be a perfectly healthy man, and in no way did he seem to have any of those diseases that render the bones brittle or predispose them to fracture. Crepitus was obtained by manipulation and the shortening was about an inch, in fact all the usual signs of fracture of the neck were present. The case was treated by extension, and did well for thirty days, when it was deemed advisable to move the patient to a better place. On the way to the new location the man seemed to have overfed himself and brought on a colitis, which superinduced a peritonitis, from which he died. An autopsy confirmed the diagnosis of intra-capsular fracture and of colitis and peritonitis.

Toxicology.

TOXIC ACTION OF MUSHROOMS AND ITS ANTIDOTE.—The toxic action of mushrooms of all species is due to muscarine, the active principle discovered and separated by Schmiedeberg. Brunton, on injecting muscarine into animals, found the following symptoms: Retardation and finally disappearance of cardiac and arterial pulsation, dyspnœa and cyanosis. Afterwards, on injecting atropine, the cyanosis and dyspnœa passed away and the heart again commenced to contract normally. Thus, atropine may be considered as an antidote to poisonous mushrooms.—*L'Union Méd.*

CASE OF POISONING FROM WINE OF OPIUM IN AN INFANT THREE WEEKS OLD; ARTIFICIAL RESPIRATION EMPLOYED—RECOVERY.—(*L'Union Médicale.*)—Mm. Nicholas and Demouy report the case of an infant three weeks old to whom, by mistake, a teaspoonful of wine of opium had been given, instead

of syrup of chicory. The dose was given at 9 o'clock, A. M. The child was a strong and vigorous one.

M. Nicholas sent the messenger for two grains of tartar emetic, intending to give it himself in small doses as soon as he would reach the patient. The excited servant, however, arrived home before the doctor, and gave the emetic in one dose. The doctor, on arriving, gave about two ounces of oak apple infusion afterwards, and then coffee freely, and awaited developments.

The first symptoms made their appearance about eleven o'clock. They consisted of slight somnolence and nausea accompanied by tonic convulsions, following which the child would fall into a state of complete inertia. These accidents persisted until seven o'clock, P. M. From the very first, the simple injection of a liquid brought on these convulsions and collapse; and they became more and more frequent and serious during the first day. The heart itself would cease to beat during the more or less prolonged syncopal state following the attacks. During the first twelve hours, there were no vomitings, stools, nor emission of urine. Messrs. Nicholas and Demouy alternated with each other for forty-eight hours in the care of the little patient. When the attacks would come on, the child was held between their knees and artificial respiration was kept up by movements of the arms, or by compression of the chest, or by simple succussion. As often as twenty times, the infant was supposed to be dead, when by still keeping up their efforts, some manifestation of life would again appear to reward them. At seven o'clock, P. M. the somnolence appeared to diminish, and the child opened once its eyes. The next day, reaction manifested itself; the face, before very pale, now became very congested; the pulse ran up to 180. Towards four o'clock of the second day, wetting the lips with some brandy, determined some movements which indicated a return of strength. Shortly afterwards they succeeded in making their patient swallow a few drops of milk with a drop or two of wine. This medication was continued at shorter and shorter intervals until one o'clock, A. M. of the third day, when the baby was sufficiently reanimated to take to the breast. Recovery became more and more marked during this day, and on the fourth the child was completely re-established.

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Original Communications.

Criminal Abortion—Transfusion of Blood. A Clinic.

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THIS patient, gentlemen, is a woman, seventeen years of age, and she tells me that she has been married. She had her courses until two months ago, but previously to that she says they were not altogether regular. But two months ago they ceased entirely, but she now says they returned again after several weeks. Previous to two months ago her health was good, but during the time of the cessation of her menses she complained of dizziness, headache and in the morning she always felt like vomiting. This vomiting continued during the morning, before she could take any breakfast. As long as she felt this sickness of the stomach she could take nothing to eat, but it would disappear about the middle of the forenoon, at which time she could eat.

Now, you see, gentlemen, the history is a very simple one; extremely simple. To recapitulate, she says her age is seventeen, that her health was good previous to two months ago; about two months ago she noticed that she did not have her courses at the regular period. The menses were skipped twice. Some three weeks ago, however, they returned, but before their return, or before a bleeding, she had sundry symptoms which gave her a good deal of distress, the chief of which was this nausea and vomiting. This continued until about the middle of the forenoon and then disappeared. While it lasted she could eat nothing. It evidently distressed her a good deal, because when she entered the hospital she looked upon it as being the chief thing in connection with her trouble. Now, her menses, as I said, came on about

two and a half, or three weeks ago, or what she called her menses. But contrary to the usual custom with her, it has not ceased entirely from the time it began until now. Her usual menses continued five or six days at the outside, five usually. But here we see there has been a loss of blood for a period of about three weeks. Not constant; sometimes during the day she would not notice it at all, but there has been hardly a day, and indeed, I may say not a day during that three weeks that she has not lost some blood.

Now, this nausea has continued, but not so distressingly as before the bleeding came on. There has been no special pain she says except on pressure, and then the pain seems to be more that of nervousness than of inflammatory trouble. There is no elevation of temperature, in fact there are none of the evidences of inflammatory trouble of any kind as far as outward symptoms are concerned.

Now, when a vaginal examination was made in this patient, much difficulty was encountered because she resisted very strongly, complaining of pain, etc. It was not until after several attempts were made that the doctor was able to discover that the uterus was perhaps a little bit larger than it should be, and that the external os was a little bit patulous, perhaps somewhat softened. There was nothing in the pelvis aside from this that seemed out of the way. The bowels were in good condition, the bladder in good condition, and there were no tumors, nor anything of the kind in the neighborhood of the uterus. Now, I repeat this because I am not sure that I shall succeed in making a vaginal examination to-day, but I will try. The other examination was made several days ago, and I wish to make another only to ascertain whether the same condition of things exists now.

I have succeeded in reaching the cervix,

and I find exactly the condition of things that the doctor spoke of. Now, it is utterly useless for me to attempt to estimate the size of this uterus, for the abdominal muscles are as tight as a rubber bandage upon the stretch. I find the cervix softened, the lower segment of the uterus apparently enlarged, although as you know that is rather a deceptive way of making an examination, by the vagina alone. I find the uterus moveable, and I find no evidences of any tumor, of any cellulitis, or inflammation of any kind.

Well, it is not difficult to say what is the trouble with this patient; yet it may be best to inquire a little further in order that there may be no possibility of mistake. On examining the nipples we find not a deep darkening at all, but as the patient is a blonde we should not expect to find as deep a tinge around the nipple as if she were a brunette. Now, under ordinary circumstances this areola would be about the color of the skin, perhaps a little more pink than the surrounding skin, but certainly not as dark colored as we find it here. Now, in addition to this you will notice some little papules like, about half a dozen in number, around each nipple. Now, is that a sign of any importance, taken in connection with the symptoms that we have here? "It is corroborative." Yes, it is corroborative merely. Well, then, we have here certain evidences connected with the mammae that point in the same direction as does the history which she gives. That is, we find some enlargement of the glands, and we find slight tinging of the areola.

Now, all of you, or most of you at any rate, know how difficult it is to pronounce upon the exact condition of a patient of this sort. There are a good many conditions that might give rise to everything the patient has complained of, even to the darkening of the areola. There are some who doubt whether any other condition of the uterus can give rise to the enlargement of these glands, still I imagine that under certain circumstances of chronic inflammation of the uterus these might possibly be enlarged.

I have sent the patient out, gentlemen, that I may give you her history a little more completely, or correctly than she has done. The point of difficulty, or chief point of difficulty in this case, and cases that you will meet with, is that she is not married. If

you were to be called upon in a case of this sort where the patient was unmarried, it would be unwise on your part to say anything about abortion; extremely so. You can have any idea you please in regarding to it, you may suspect it as much as you choose, but do not say so. If she were a married woman, of course, there is no reason why you should not express yourself more freely, but the patient being an unmarried woman, I would suggest to you to be very close-mouthed with regard to the expression of any positive opinion; in fact with regard to the expression of any opinion on that point at all. Of course, in a case of criminal abortion the circumstances may allow and even demand that you express an opinion perfectly freely, but I have been referring to cases which come up in common practice. Now, in my own mind there is no question as to the facts of this case. Here is a woman perfectly healthy until two months ago, with no history of any tumor, or growth at all; besides that she is of that age at which such growths are not likely to occur. It is true that we do sometimes have intra-uterine polypoids at that age, but rarely. Then, two months ago there was this cessation of the menses, and a morning sickness which she had never felt before, and respecting the meaning of which she was entirely ignorant. Then you have this bleeding coming on and continuing for about three weeks, and along with that that appearance around the nipple. Now, these facts are sufficient to convince me that the woman was pregnant. She is evidently trying to conceal something from us, and that is that there was an attempt made to bring on a miscarriage, an abortion. This bleeding which, of course, is one of the symptoms of abortion is not spontaneous in her case. She is too strong, too vigorous a woman for such an accident. By spontaneous, I mean due to some ordinary cause of abortion aside from any criminal interference. If it were due to some ordinary cause she would not hesitate to say so, as it is, she does not give any such history, so that we are compelled to believe something has been done. But what that something is, of course, we can not definitely determine, but some one of the various means which are employed by these criminal abortionists for the purpose of bringing on a miscarriage.

There is one other symptom which I did

not draw out when she was present for certain reasons, and that is the existence of pain. Now, this pain has had all the characteristics of pain which exists when the uterus is endeavoring to get rid of some foreign substance; in other words, pains from the contraction of the uterus. She has had them from time to time. It is rather a difficult thing to dislodge the ovum from the cavity of the uterus even by the introduction of the sound, as you quite well understand. The pain accompanied the bleeding, continued for a few hours, and then would disappear to return again after perhaps the elapse of three or four days. The pain was always in the region of the uterus, and intermittent in character. That pain sometimes goes on for a month, (in this patient it has continued for three weeks,) until finally the ovum is expelled, or it may become so diminished in size from the uterine contractions and degeneration as to be nothing more than a small foreign substance, or fibrous tissue, attached to the side of the uterus, which is not sufficient to give rise to pain, but gives rise to some hemorrhage, as in a case I showed you about four weeks ago.

Now, the size of the ovum in that woman is just about the size of this one here, which I removed from a patient a week ago, with a history almost identical with this. Now, the mass that you see there includes every thing that is properly connected with the ovum. You have the outer coat there, the decidua vera, then inside of that you would find, if you made a careful dissection, the decidua reflexa, and then the chorion. The fetal body was an extremely minute substance, not larger than a good sized garden pea at the time when it was removed. It is pretty well broken down, and you can not see it easily. That pregnancy was of about six weeks' duration, if I remember correctly.

Now, the condition of affairs that exists in the uterus of this woman is simply this: that body that you see there, in that specimen, remains in the cavity of the uterus. If it were enucleated it would appear precisely like what you see there; nothing more. But, as you see, there is a good deal of foreign tissue there. I say foreign, because there is a certain amount of hemorrhage taking place. The decidua is separated all around, with the exception perhaps of the neighborhood of the decidua serotina. Now, if that remains,

in the first place it is capable of giving rise to all the evidences of septicæmia. It may decompose and poison the patient, and you have puerperal fever, or pyæmia—because puerperal fever is nothing more than pyæmia resulting just as surely as you would have the same condition resulting from retained placental membranes after regular labor. That is the way in which many of these patients die. They will have criminal abortion produced upon them; they will come home, and become sick with a fever; they deny the existence of any irregularities connected with the menses; they talk about malaria, chills and fever, and all that kind of thing, which would be borne out by the appearances of the temperature; until finally when you come to question them closely you may be led to make a vaginal examination, and you find out the true facts of the case. In other cases, however, this material breaks down only partially, and at the decidua serotina it remains attached to the uterus, forming a kind of polypoid growth which leads to hemorrhage at times for an indefinite period. That fact I have explained to you before, and in fact showed you a patient about three weeks ago illustrating it. Fortunately, I have not had to meet with cases to show you which would illustrate the other aspect of the case, but there is nothing specially different between the symptoms of that condition and the conditions which present in ordinary cases of puerperal pyæmia. You see I use the term puerperal pyæmia, and it is for this reason, that I wish to impress upon your minds the fact that puerperal fever, in my opinion, means nothing more than puerperal pyæmia, and this matter of using different terms to express the same thing is liable to take the mind away from the true condition that exists, namely, that pyæmia has resulted from a decomposing mass in the uterus.

What are we to do in this case? We have two risks to bear in mind. In the first place, the possibility of the decidual membrane breaking down and decomposing, and setting up ordinary puerperal fever, or septicæmia. In the next place, we have to take into account the possibility of the membrane remaining, and secondary hemorrhage occurring. What we shall do is this: we shall simply keep her quiet, hoping that the hemorrhage may possibly be from the lower segment of the decidua. If it be from the

lower segment of the decidua then it may possibly remain attached to the uterine wall; this separated portion may reunite, and the pregnancy go on to term. If, however, the hemorrhage is from the upper portion of the decidual membrane, the chances are that the decidual attachments have been torn off pretty much all around. If that be the case of course separation is inevitable.

Now, the external os is partially dilated. That is in favor of separation, but at the same time is not sufficient evidence to make us feel positive that entire separation has occurred. Therefore we propose to wait and see whether hemorrhage will stop spontaneously, and if it does, in the absence of any special symptoms, we shall do nothing. We shall wait, in other words, for further developments. If no special symptoms occur the chances are that pregnancy will go on; if other symptoms make their appearance, those which belong to poisoning, or those which belong to hemorrhage, it will be time enough to interfere.

Now, the treatment then in this case, to recapitulate, has been quiet and opium. The hemorrhage, if it had been very severe, severe enough to affect the general condition of the patient, would have called for a tampon. But it was not severe enough for that. Now, in applying the tampon in a case of abortion, remember that it is about the last thing you are to resort to, and is only called for in case other measures have failed to give relief. Ordinary hemorrhages can be controlled by the application of cold and minor remedies, but a dangerous hemorrhage of course calls for prompt control and this sometimes is to be done only by the application of a tampon.

Now, the reason why we are so careful in introducing a tampon into the vagina in a case of abortion is, that the tampon itself is a stimulus to abortion. It will, in fact, sometimes bring it on. The mere distension of the vagina with the rubber bag distended with water is one of the measures resorted to for the purpose of stimulating the uterus to contract in a case of tedious labor. The use of the tampon is liable to excite the same condition of things, and you are to resort to it only in a case of dangerous hemorrhage, and in no other case. The hemorrhage has not been sufficient in this case to warrant its use. Now, if we find that this hemorrhage

continues, if we find any evidence of elevation of temperature we will interfere, and our interference in the two cases will be pretty much the same. That is, we will use the dilator to distend the cervix, and then by means of a large curette endeavor to separate the mass that is within the cavity of the uterus attached to its walls, and take it out. If there be septicæmia we will go further, we will resort to the injection of solutions directly into the cavity of the uterus itself. That would not be necessary for simple hemorrhage. But if decomposition has taken place in that mass, then we use the disinfecting washes applied to the cavity of the uterus, as in any other case of uterine septicæmia; that is septicæmia which has its origin either in an abortion, or in a natural labor. Then these intra-uterine carbolic injections are of the very first importance. In fact, they are the main measures that you are to employ. The only precaution to be taken is to see that the cervix is pretty well dilated so that the fluid can return without any obstruction. Another precaution is to make these injections by means of the fountain syringe rather than by means of Davidson's syringe, because with the fountain syringe you avoid the possibility of getting into the fallopian tube itself.

That, together with the measures to control excessive temperature, would be about all that I would recommend in the case. Use the one per cent. solution of carbolic acid. If you use stronger than that it may excoriate the tissue and may set up secondary inflammation. You may, perhaps, use a one and a half per cent. solution, but for safety's sake I would advise the one per cent. solution.

The next patient whom I shall show you does not, properly speaking, present a uterine case, but at the same time she had an operation performed upon her the other day that is frequently indicated in obstetrical practice. I bring her before you simply that I may make some remarks upon the condition in question. At our meeting on Friday last we were speaking of post-partum hemorrhage, and of the various measures that should be resorted to for controlling it. It is not necessary to go over what was then said. The last measure alluded to was the transfusion of blood. Now, that is the operation that was performed upon this patient,

and as you see with success. The patient had empyema upon the left side. The pus filled pretty much the entire pleural cavity. It was necessary to make a free opening in order to let it out, because you know the tendency of purulent accumulations within the pleura is to go on, and form indefinitely. The mere drawing of it off with the aspirator is not enough. Now, in general in an empyema you will find that there have been sufficient adhesions between the surface of the lung and the pleural wall to keep the lung from collapsing to any extent. As a rule the lung in these cases is covered by a thick layer of fibrous tissue which binds it down to such an extent that under ordinary circumstances it does not collapse. In this case, however, the condition in question evidently was not present, because when the cavity of the chest was opened to let out this pus there was some collapse of the lung; but worse than that, there was a good deal of hemorrhage oozing from the cavity of the sac itself, a portion of the hemorrhage may have been from wounded vessels, but diligent search was made and nothing of the kind could be found. The supposition was then that the hemorrhage came from certain vessels that had been ulcerated through by the purulent inflammation that had gone on there; at any rate that their surroundings were weakened, and that this hemorrhage was from points of that kind. Of course, it would have been difficult to enlarge the incision and go into the cavity. To do that it would probably have been necessary to remove a rib. Therefore styptic injections were restored to, and that, with the application of cold, after a time stopped the hemorrhage. But within that time the patient became so much exsanguinated that the question arose, what should be done to restore her? Her pulse was one hundred and fifty, and extremely feeble. It seemed to me to be a case that indicated the transfusion of blood. The operation was therefore resorted to at once.

In this case I concluded to make use of immediate transfusion; that is by means of Avel's apparatus, such as you see here. You know that there are two methods of transfusing blood: first, the Aveling method, that is where the blood is introduced directly from the vein of the giver into the vein

of the restored; and, second, there is the method by means of which the blood is defibrinated; the indirect method, in which the blood is first received into a vessel and defibrinated by whipping with a fork, and then the remaining blood consisting of blood globules and serum is introduced into the patient's circulation.

Now, in regard to the difficulties of the two operations. I will describe to you exactly what happened in this instance, step by step, in order that you may appreciate the difficulties that are likely to present themselves at the bedside in a case of post-partum hemorrhage, where you have but very little time to work. But mind you, I had plenty of time here; there was no hurry. In the first place, I took an acu-pressure needle and introduced it into the vein of the patient, filling the vein so as to raise it up and get it well in sight. The vein was then opened and the injector introduced. So far everything went very well. Then came the introduction of the nozzle into the vein of the individual supplying the blood. In making the incision I made it unfortunately a little too low, just below the bend of the elbow, so that the anastomotic vein came in directly above the point at which I made the opening. The result was that when I ran my instrument down into the main vein upon the arm it, of course, stopped the flow of blood there temporarily, and it came around through this anastomotic branch and escaped above the point at which my instrument had been introduced. Therefore, in making the incision in the first place in the vein of the giver of blood, be careful to make it just above the bend in the elbow so as to avoid that anastomosing branch as it comes in, by doing so you get the stream of blood which comes from the two main feeders of the cephalic vein.

In order to bring out the vein of the person who supplies the blood, of course compression is necessary. That distends the veins below. Then cut down upon the vein, seize it with the tenaculum, if you choose, or any instrument that will hold it; then remove the pressure from above and place it below temporarily so as to prevent hemorrhage while you are introducing the nozzle of the instrument, and this introduction of the nozzle into an open vein is not so very easy a matter, by the way. You must have the sides

of the vein carefully held open with small forceps, so that your assistant can introduce the nozzle directly into the calibre of the vessel; after having introduced the nozzle, you can remove all pressure from below, and if you choose reapply it above so as to increase the venous pressure, and the transfusion will go on. So much for the details regarding the opening of the veins. The greatest difficulty as stated in the books is said to reside in opening the vein of the patient, but I think you will find that a good deal of difficulty will be experienced in connection with the vein of the person giving the blood.

Now, in making this immediate transfusion it is necessary to exclude air from your instrument, and in order not to lose any blood I should use the ordinary saline solution that is suggested in these cases. For instance, I took a solution containing one drachm of the chloride of sodium, six grains of chloride of potassium, three grains of the phosphate of soda, twenty grains of the carbonate of soda and twenty ounces of water. That is the solution that I used for introduction here; that was warmed up to about a temperature of 100 and then the instrument was filled with it. After it was filled a blunt pointed nozzle was introduced into the vein of the person giving the blood, and the pressure from behind of course, together with the fluid that was already in the syringe, got rid of all air. The fluid was then flowing through the extremity of the syringe that was introduced into the vein of the patient. In that way all possibility of air entering the vein was done away with. Then the instrument was simply worked according to the ordinary plan; when the bulb was being compressed, of course the side of the tube closed, and the vein of the individual furnishing the blood was compressed so as to prevent regurgitation of the fluid, and then after the instrument was allowed to fill it was simply compressed upon the side which was next the patient. In this way we introduced about three drachms of the solution, and about three and a half ounces of blood.

Now, the symptoms that made their appearance at the time in this patient are those symptoms that are to be your guide as to when you have introduced a sufficient amount of blood. The patient was breathing at the commencement of the operation at the rate

of about fourteen respirations per minute. She had taken some opium which was partially responsible, of course, for the depression of her respiration; but aside from that her respirations were regular and natural. Now, after we had introduced about two ounces of fluid, the respirations had gone up to about eighteen, and by the time we had introduced the three and a half ounces her respirations were twenty-four, and there was a good deal of gasping for breath. At the same time there was a small amount of cyanosis over the surface. But it is this gasping for breath, the patient rising up and making strenuous efforts to inflate the lungs, together with the increased rapidity of the respirations, a certain amount of constriction around the chest, that constitute the symptoms which indicate to you that you have gone far enough, that you have introduced a sufficient amount of the fluid. Then you can wait, leaving the instrument *in situ* if you choose, until all of these symptoms disappear. If the patient then shows evidence of rallying you perhaps have introduced enough; but if the pulse should still remain weak and feeble after an interval of half an hour or more, you can introduce more of the fluid. Ordinarily, however, when once these symptoms have shown themselves they indicate that a sufficient amount of blood has been introduced for the purpose in question.

My own impression with regard to this operation is, that the indirect method is probably the better. That is the one that is most easily carried out. There you draw the blood from the person who is furnishing it in an adjoining room; you beat it up so as to get rid of the fibrine, of course keeping the vessel that contains the blood in a second vessel which contains water at a temperature of about 110°, so as to preserve the blood at a proper temperature, and then bring it to the bedside of the patient; open the vein of the patient, and introduce it directly into the circulation.

In either case I would suggest to you to use the alkaline solution; first, because it has no deleterious effect upon the blood, and then too, it certainly is necessary in the case where you use immediate transfusion, because there it prevents coagulation of the blood. In the other case it is not so absolutely necessary, but as it does no special harm and seems to do good I would use it even in connection with defibrinated blood. It increases the

volume of the blood any way, and that, after all, is one of the main points in these cases. Even milk itself, has been known to restore patients who have lost blood excessively.

Now, there is not very much in this case that is unusual, it is simply because it has enabled me to impress upon you certain facts in connection with the transfusion of blood that I have brought her before you. Remember that I believe you will have less trouble if you use defibrinated blood, than if you attempt to transfuse directly from one individual to the other.

Severe Cut of Throat, followed by Recovery— Tracheotomy.

BY C. C. TERRY, M. D., FALL RIVER, MASS.

WILLIAM N. was a mill-hand, aged 29, employed in Fall River. March 5, 1880, he was taken to the police station on account of mild delirium tremens. Dr. Abbott treated him with moderate doses of chloral, and he became more rational, but still had hallucinations of sight and hearing. March 6, while alone in his cell he sawed open his throat with the edge of a tin dinner plate that he broke in two. He was found sitting in his bed calmly sawing into his throat and muttering some delirious talk. Attempting to rise he fell half fainting from loss of blood, and in that condition I found him.

A transverse wound about four inches long skirted the lower margin of the body and greater cornua of the os hyoid, both sides, dividing the sterno-hyoid, omo-hyoid and thyro-hyoid muscles on both sides of the median plane, also the thyro-hyoid membrane; and it penetrated the left recessus pharyngo-laryngeus by an opening bigger than the point of a finger. The mucous lining of the valleculæ bulged into view with every attempt to swallow, or speak, making on each side of the membrana hyo-epiglottica a ranula-like tumor. The rough edge of his instrument had dissected and torn away the softer parts, so that the lower surface of the os hyoides could be traced well backwards by the finger. The top of the thyroid box had been scraped back so that it presented an obtuse angle with a large triangular upper surface that extended backwards over the glottis as far as the attachment of the epiglottis would permit.

Out of the opening into the pharynx came

blood and an abundance of saliva. He was able to talk distinctly, and earnestly desired to finish the suicide.

The external wound gaped downwards rather than upwards thus leaving the obtuse-angled larynx exposed for half its height. Every effort to swallow or speak caused the larynx to bob up and down in the wound.

No bloodvessel of any consequence was injured. The left carotid sheath lay bare in the wound; the right sheath was not quite exposed. The left half of the upright epiglottis was plainly visible in the pharyngeal wound. In view of the danger of œdema glottidis, I determined to make a tracheotomy. He seemed quite insensible to pain, but to keep him still ether was given. The incision was made immediately below the cricoid cartilage and a medium-sized double canula was inserted. I closed the pharyngeal wound with silk to keep out the saliva and closed the external wound with silver wire. In closing the pharyngeal wound it was necessary to include the thyro-hyoid membrane, because the mucous and submucous tissues gave way so easily.

Generous doses of chloral, beef tea and milk were administered. A strait-jacket was required. The patient was catheterized for several days. Nourishment and medicine did not escape by the wound.

March 7th, tracheal catarrh commenced and came to be rather troublesome.

March 8th, some drops got into the glottis and made him cough. A laryngoscopic examination showed the glottis to be injected and the cords red and swollen, but there was fair breathing space. The voice was weak and thick.

March 10th, the jacket was removed, though the mind was not yet quite clear. The vocal cords were less swollen while the ventricular bands were still swollen and dusky. He swallowed sponge cake with pain, and liquids were apt to make him cough.

March 12th, the tube was removed and the wound allowed to close.

March 13th, some of the silver wire sutures had cut out, and the rest were removed. Good granulations were everywhere visible and the wound was closing, a little liquid now and then escaping from the wound.

March 15, the patient was transferred to the State almshouse at Tewksbury, where he

continued to do well, and the wound was completely closed by granulation. The closure at the time of his discharge from that institution (July 30) was complete, and left no disfigurement unless a person looked for it. There seemed to be an entire healing also of the internal parts, though when he swallowed any large, or rough object he was still conscious of an abnormal tenderness.

It is especially noteworthy that this wound could not be made to unite at all by the first intention, while it healed kindly and rapidly by granulation. With regard to the preliminary tracheotomy, the indications for it in such cases are plain. Dr. David W. Cheever, in *Boston City Hosp. Reports*, (1st series p. 488), says, "Would not so innocent an operation, in the adult, be a wise precautionary measure to employ in all cases of wounds above the glottis?" George Fischer, in *Pitha and Billroth's Hand. d. chir.*, (iii 1. 106), formulates it thus: "In all wounds involving the glottis and epiglottis, especially between the hyoid and thyroid bones, the danger of suffocation is so great and may arise so suddenly that we should immediately make a tracheotomy before closing the wound."

Rupture of the Perineum.

BY DAVID INGLIS, M. D.

Paper read before the Detroit Academy of Medicine.

GOETHE well said, "there are many echoes in the world, and but few voices." I do not intend to give voice to any original ideas, but simply to echo well-known truths; simply to call attention anew to an accident with which every one of us must be familiar, whose prevention depends largely upon our care, and yet to which but little attention has been paid in our medical literature; I refer to rupture of the perineum.

The frequency of this accident is very differently estimated by different observers, one of whom (Ritgen) goes so far as to claim that he has had no rupture in 757 cases, while another (Snowbeck) reports 75 serious ruptures in 112 primiparæ. Schroder's figures form, probably, a safer basis, being 34.5 per cent. for primiparæ and 9 per cent. for multiparæ.

These discrepancies arise from two facts: First, that ruptures of the perineum, and, indeed, those of very great extent, are often overlooked, owing to the fact that many

obstetricians do not uncover the patient during delivery; many do not make an examination of the condition of the perineum immediately after the completion of labor; others who are in the habit of having the patient confined in the dorsal position cannot, without special attention, see the perineum after the greater part of the head projects; while others, having satisfied themselves that the perineum is intact, after the delivery of the head, forget that frequently the perineum is torn during the passage of the shoulders. This latter is especially apt to happen where, as is often the case, the rupture begins in the mucous surface and the skin gives way last of all. In such cases the perineum may seem to be intact after the passage of the head, and yet the subcutaneous tissues be torn to such an extent that the passage of the shoulders is sufficient to complete the laceration. A second reason for these discrepant statistics is found in the different degrees of laceration to which the name rupture is given.

Ohlshausen, whose instructive monograph upon this subject forms the basis of this paper, and who gave special attention to the care of the perineum, excludes all cases of laceration of the frenulum, and then reports as the best results of 10 years' attention to prevention of this accident among primiparæ 21 per cent., and among multiparæ 4.7 per cent.

If these, then, are the results under the care of one who has paid special attention to the matter, and if we are, therefore, justified in assuming that of primiparæ who come under our care one in five will suffer from a lacerated perineum, we are fully warranted in giving heed to the matter, also, so that our patients may come off with the least possible harm.

What, then, is the harm? In many cases, none whatever. If the rupture involve only the cutaneous or mucous tissues, or the subcutaneous or muscular tissues only to a slight extent and no unfavorable puerperal conditions supervene, the wound rapidly heals, sometimes even by first intention. In favorable conditions of the system it would seem that even very severe ruptures heal spontaneously, without any further attention, the granulating surfaces growing together steadily from the angle of separation. Such is probably the case in the majority of slight ruptures. The patient never knows that there has been anything amiss.

But, even although the rupture be but slight, if any septic process is set up, if the lochia become offensive, the lacerated surface then forms an additional focus for the absorption of the poisonous material, and we have, presently, to deal with a case of septicæmia or phlebitis, with their attendant dangers, and thus the prevention of even a slight laceration might be the means of preventing serious disaster.

It is, however, the larger ruptures which give to this subject its importance, those in which the entire perineal body is torn, it may be to or around or even quite through the sphincter ani. Such cases also may be and are overlooked, and not until the patient begins to be on her feet does the vaginal wall, having lost its support, begin to descend, dragging the uterus with it and thus giving rise to grave and troublesome uterine disease, informs the patient that all is not right. The extent of the trouble varies, but at times the results are extreme, and the patient's health is forever ruined. In other cases the sphincter is ruptured; then the alvine incontinence renders life almost intolerable, or the sphincter, not being wholly divided, or perhaps being drawn awry by cicatricial tissues, may not entirely lose its function until a diarrhœa reveals the damaged condition. When the functions of the sphincter are much impaired, a further complication sometimes sets in, viz., an intractable diarrhœa, possibly caused by the entrance of air into the rectum.

These are some of the grave dangers to life and health which it may lie in our power to prevent.

What, then, is the cause of this untoward accident? If under special care 20 per cent. of primiparæ are ruptured, shall we be discouraged and conclude that it is the way of nature? In some cases, undoubtedly, the utmost care and attention fail in preventing its occurrence; these are cases in which there is a great discrepancy between the size of the vulva and of the foetal head, there being either a very small vulva or a very large head. It is self-evident that the tissues, although elastic, still have a limit to their elasticity, and when this is passed a laceration must occur. A similar relation exists when we have to deal with an abnormal presentation, so that the head emerges with one of its larger diameters parallel with the plane

of the outlet. But in uncomplicated labors the cause of the rupture is probably most often due to unduly rapid expansion of the vulva, and these, the most numerous, are the most readily managed cases. The worst rupture of which I have had personal observation was a Y shaped one, which extended back on either side of the rectum; this was caused by the sudden delivery, with the forceps, of a very small child by an excited and inexperienced student. Cases of rupture in vigorous patients with powerful pains are not uncommon, the vulva not being allowed time for expansion. A further cause lies in the expulsive force being directed too far backwards, so that the occiput does not remain as close to the pubis as possible. It is in such cases that the so-called central rupture has occurred and the fœtus been expelled through the middle of an attenuated and broken perinæum. A further and, I believe, frequent cause of rupture, is the delivery with the forceps. In certain cases the vulva, if allowed time, will barely admit of the egress of the head, and the circumference being increased by the thickness of the blades of the forceps, the limit of elasticity may be overstepped; aside from the mere increase in the circumference, the use of the forceps tends to cause rapid dilatation, and so rupture. (Edema, varicose veins, diseased tissues in the vulva are also predisposing causes.

What, then, shall we do? In the majority of cases of natural labor, the first, I might almost say the chief, duty of the attending physician is to exercise all skill and care to prevent this accident, for nature unassisted could complete the labor were no physician present. We are there to guide nature, not to interfere. The first object to be attained is to have the occiput anterior, and during the delivery to keep it as close to the pubis as possible; in this way we cause the head to emerge with its smallest diameters parallel to the plane of the outlet. Many cases of rupture being due to misdirection of the expulsive force, so that it comes directly instead of obliquely against the perineum, we should endeavor to direct the head well toward the pubis during the pains. When the occiput has emerged under the pubis, it is well during the intervals to press the occiput toward the coccyx, so that the neck may be well under the pubis during

the next pain. If now the occiput is well forward and the perineum seems in danger, the next point is to allow of its gradual dilatation, so that its elasticity may be utilized to the utmost. If the pains are powerful our object is to keep the head back, pressing it backwards toward the sacrum, and in most cases this is best accomplished by direct firm pressure of the thumb and fingers upon the occiput, not upon the perineum. This gives a more effectual control of the head, and the circulation in the perineum is not interfered with as would occur if pressure were made upon it. Much can be accomplished by preventing voluntary abdominal pressure by the patient. Usually patients can be got to cease pressing by telling them to cry out or to breathe rapidly. It has been proposed to give chloroform to accomplish this object, but usually there is no time to begin the administration of chloroform at this stage.

The head is now almost ready to emerge, and under these circumstances we can sometimes resort successfully to the expedient of causing the patient to make voluntary pressure during the interval of the pains, and by inserting the finger in the now patulous anus pressure can be made first upon the forehead, then the upper and finally the lower jaw of the fœtus. The voluntary pressure can be regulated so as not to cause any laceration. The progress of the head is gradual and can be perfectly controlled. By this procedure the head may frequently be safely delivered between the pains. Whether the perineum can best be guarded with the patient in the dorsal or lateral attitude is largely a question of individual habit. My own experience favors the latter, care being taken to separate the knees. I must allude to the uncovering of the patient to advocate its being done in all cases where rupture seems imminent. The injury to the patient's feeling of delicacy is transient, if any, and not comparable with the results of a bad rupture. The finger, no matter how delicate its touch, cannot inform us of the exact condition of the perineum as can the eyes, and often to be forewarned is to be forearmed. With the patient on the side the uncovering is usually unnoticed, and we are no longer working in the dark.

So much for uncomplicated labors. In regard to forceps cases the objections to their use as regards danger of rupture have

been already mentioned. Of thirty-one severe rupture cases operated on by Baker Brown, thirteen were forceps cases. I would not be understood as objecting to the use of the forceps. Their use is dictated in most cases by other circumstances than the condition of the perineum, but except in cases where they are applied on account of the resistance of a rigid perineum, or where there is urgent need of prompt delivery, I would advocate the removal of the forceps just before the head is ready to be delivered, thus diminishing the circumference of the head, while the delivery can be completed by rectal pressure as before mentioned. If the desirability of this be questioned it would be well to ascertain by rectal examination where the ends of the blades are. They will usually be found distending the rectal wall between them.

Returning now to the cases in which, notwithstanding every care, a rupture seems absolutely unavoidable, is there any resort left but to stand by and watch the damage being done? One rati procedure which is frequently resorted to on the continent, but which seems hardly to have gained a foothold in this country, that of episiotomy, may serve to lessen the damage. Examining a patient where a rupture seems unavoidable, it will be found that much as the skin covering the perineum may be distended, it will still allow of the finger being introduced under its free edge, showing that the elasticity is not quite exhausted, but a few lines back the finger will detect a tense constricting band—this is the constrictor cunni muscle stretched to its utmost—when a serious rupture takes place, this is the first to give, after which with more or less rapidity the skin, the transverse muscles and the levator ani in turn yield. The sudden giving way of one allows the expulsive force to exert itself suddenly upon the next, and so the rupture is unnecessarily extended.

Episiotomy is based upon the idea that the constrictor cunni being cut before or after the strongest pressure of a pain, the pressure upon the remaining tissues is brought to bear slowly, and also upon the idea that if a rupture must take place it is better that it should extend laterally rather than directly backwards as involving less damage to important structures. The operation then, consists in the incision of this

muscle at one, or, in extreme cases, on both sides. Care should be taken that the head is not allowed to advance suddenly, as it has a tendency to do the moment the constricting band is cut,—such an impulse would probably tear all the tissues which, of course, is precisely what is sought to be prevented. The operation is extremely simple. It can be done by snipping the cord-like muscle with scissors, but a better plan is by sub-mucous incision in the manner of tenotomy; or, which is the least advantageous plan, the muscle and distended cutaneous tissues may be snipped at once by the scissors. The objection is raised against this operation that the physician causes a fresh cut surface for absorption of septic material, but as the operation ought only to be made where a rupture of some sort is unavoidable the objection fails.

If this paper shall serve to call attention to our duties in the way of prophylaxis, it will have served its purpose. The consideration of the treatment of a ruptured perineum belongs to the branch of operative surgery.

21 State Street, Detroit.

A Case of Gangrene of the Penis.

BY M. K. ROSS, M. D.

(Resident Physician Harper's Hospital, Detroit, Mich.)

WEDNESDAY, June 3, 1880, George B—, aged 50, entered the hospital for treatment, presenting a well marked case of gangrene of the penis, with the line of demarcation partially formed immediately in front of the pubes. The history of the case, prior to admission into the hospital, was about as follows:

Six weeks before, on a visit to the city, he contracted gonorrhœa, which was very violent, discharge profuse; pain very severe and constant, but no sore or abrasion visible. Five days before entering, he discovered a small black spot on the side of the penis just behind the glans. Within twenty-four hours the whole penis had become black and all pain disappeared. At the time of entrance the penis appeared shrivelled, and presented the appearance of a dry or senile gangrene; odor very offensive; patient weak; tongue furred; pulse rapid; temperature 104°.

He was immediately put on large doses of iron and quinine, and hot poultices sprinkled with charcoal, applied. That night he was delirious for the first and only time. The next day he began to improve, and line of

demarcation became perfectly established. Four days later the urethra sloughed through and urine escaped freely through the opening.

June 13th, or eleven days after admission, the slough was completed, and the entire penis, on a line with the pubes, came away, leaving a healthy granulating surface. This gradually healed, and the patient was discharged, with no trouble of the urethra in voiding urine.

The peculiarity in this case was the method of invasion. We have seen cases of phagedena, in which, by rapid stages, the whole or portions of the penis have been destroyed; but to lose that organ in its entirety, and by gangrenous process, has never been reported by any authority that I have consulted.

The only explanation seems to be that of an embolus, either from rupture of some blood vessel or from constriction, following excessive inflammation; and yet there was no history of chordee. The only complaint was of the constant and almost unendurable pain prior to the appearance of the gangrene.

List of Books which will be found Valuable to Candidates for Examination in Sanitary Science, by the Michigan State Board of Health.

(The books are here classified the same as the topics published in the regulations for the examinations. The necessity of reading all of the books is not urged.)
In all cases where known, the price of the book, and the names of the American publisher has been given.

I.

INTRODUCTION to the study of Biology—H. Alleyne Nicholson. Appleton & Co., New York, 75 cents.

Article on Biology in *Encyclopædia Britannica* and in other *Cyclopædias*.

II.

(a) Theory of Probabilities—M. A. Quetelet, translated by O. G. Downs. C. & E. Layton, London, England, \$5.50.

Articles on Statistics and Vital Statistics in various *Cyclopædias*.

Essays and Papers on some fallacies of Statistics—H. W. Rumsey. Smith, Elder & Co., London, England, 12s.

Vital Statistics of Michigan, Annual Reports 1868–1874.

Article—Report on Methods of Collection of Vital Statistics, in Report of Michigan State Board of Health for 1876.

Article on "Weekly Reports of Diseases in Michigan." Annual Reports Michigan State Board of Health, 1878–1880.

(b) Vital Statistics of Michigan for 1872 and subsequent years.

Annual Reports of the Michigan State Board of Health, 1876-1880. Articles on "Weekly Reports of Diseases," and "Principal Meteorological Conditions in Michigan."

(c) Filth Diseases and their Prevention—John Simon, M.D. James Campbell, Boston, Mass., \$1.00.

Disposal of Slop Water in Villages—C. B. Fox. J. & A. Churchill, London, Eng., 18d.

Healthy Houses—Fleming Jenkin, F.R.S., adapted to American Conditions by George E. Waring, Jr. Harpers' Half Hour Series, 25 cents.

House Drainage and Water Service—James C. Bayles. David Williams, New York, \$3.

Wilson's Hand-Book of Hygiene. Blakiston, Philadelphia, \$3.

Hart's Manual of Public Health—Smith, Elder & Co., London, England, 12s. 6d.

(d) Anstie on Stimulants and Narcotics. Blakiston, Philadelphia, Pa., \$3.

Tables, etc., on Mortality by Occupations, in United States Census, and in Vital Statistics of Michigan, 1868-1874.

(e) Disease Germs; Their Nature and Origin—L. S. Beale. Blakiston, Philadelphia, \$5.00

The Germ Theory of Disease—Machlagan. MacMillan & Co., London, England, \$3.

*Lectures on the Theory and General Prevention and Control of Infectious Diseases, by Jas. B. Russell. James Maclehorse, Glasgow, Scotland.

Fermentation—Schützenberger. Appleton & Co., New York, \$1.50.

Practical Biology—Huxley and Martin. MacMillan & Co., London, \$1.50.

Air and its Relations to Life—W. N. Hartley. D. Appleton & Co., New York, \$1.50.

Article on Origin and Propagation of Disease—John C. Dalton, M.D., read before the N. Y. Academy of Medicine. Smithsonian Report, 1873.

(g) Parkes' Hygiene, edited by De Chaumont. Blakiston, Philadelphia, \$6.

Documents on "Restriction and Prevention of Scarlet Fever;" on "Restriction and Prevention of Diphtheria;" Circulars 34 and

35, issued by the Michigan State Board of Health, Lansing.

III

(a) Attfield's General Medical and Pharmaceutical Chemistry, 8th Revised Ed.—Henry C. Leas' Son & Co., Philadelphia. \$2 50.

*Lectures on Air, Water-Supply, Sewage Disposal, and Food—William Wallace, James Maclehorse, Glasgow, Scotland.

Letheby on Food. Wm. Wood & Co., New York, \$2.25.

Hassell's Food and its Adulterations. Longmans, Green & Co., England.

Parkes' Hygiene, edited by De Chaumont. Blakiston, Philadelphia, \$6.

Wanklyn and Chapman's Water Analysis. Trubner, London, England, \$2.50.

Frankland's Water Analysis for Sanitary Purposes. Blakiston, Philadelphia, \$1.00.

(b) Loomis on Meteorology. Harper, New York, \$1.75.

(For reference.) Air and Rain—R. Angus Smith. Longmans, Green & Co., London, 24 shillings.

Annual Reports of Michigan State Board of Health for 1874, article on "Meteorology of Central Michigan;" 1875, directions for taking meteorological observations, also an article on Ozone; 1878-1880, articles on "Principal Meteorological Conditions in Michigan."

IV.

Sanitary Engineering—Baldwin Latham. E. and F. Spon, London, England.

Sanitary Engineering—J. Bailey Denton. E. and F. Spon, London, England.

Parkes' Practical Hygiene, edited by De Chaumont. Blakiston, Philadelphia, \$6.

The House and its Surroundings. D. Appleton & Co., New York, 40 cents.

Sanitary Houses, Two Lectures by James A. Russell, M.A., M.B., etc. MacLachlan & Stewart, Edinburgh; Simpkin, Marshall & Co., London, England.

Sanitary Work in Towns and Villages—Charles Slagg. Crosby, Lockwood & Co., London, England.

Sanitary Work in Villages and Country Districts—George Wilson. J. & A. Churchill, London, England, 18d.

Healthy Houses—Wm. Eassie. D. Appleton & Co., New York, \$1.00.

V.

Hand-book for Inspectors of Nuisances—

*The lectures by James B. Russell, M.D., and William Wallace are published in one volume by James Maclehorse, Glasgow, Scotland; price 1 shilling. Hamilton, Adams & Co., London, England.

Edward Smith, M.D. Knight & Co., London, England, 5 shillings.

The Sewage Question, with special reference to Traps and Pipes—A. Fergus, M.D., M.R.C.S. Porteus Brothers, Glasgow, 18d.

Annual Reports of the Michigan State Board of Health, 1873-1880. Schedules for Sanitary Survey of a City—Am. Public Health Association. Published by U. S. National Board of Health, Washington, D.C.

Sanitary Inspection of Memphis, Tenn., Schedule and Report. National Board of Health, Washington, D.C.

VI.

Compiled Laws of Michigan, 1871.

Public Health Enactments in Session Laws of Michigan since 1871, particularly later ones, 1877, 1879 and 1881 (?), with index of laws amended, etc.

Public Health Laws of Michigan, Pamphlet, 1876. State Board of Health, Lansing, postage 3 cents.

HENRY B. BAKER,

Office of State Board of Health,
Lansing, Mich., July 30, 1880.

Secretary.

Reports of Societies.

Detroit Medical and Library Association.

(Official Report by the Secretary.)

December 16th, 1879.

Dr. Carrier exhibited a patient in the person of a boy who had a tumor over the temporal fossa. It had increased in size in the past two weeks, and rapidly filled up when the head was hung downwards. The opinion was held that it was a *nævus*. Dr. Carstens advised a trial of electrolysis in Dr. Carrier's case.

Dr. McGraw presented a cyst involving half of thyroid gland. Patient was doing well, the operation having been attended with little hemorrhage. Hemorrhage followed operations on old bronchoceles.

Dr. Inglis mentioned a case of confinement where the patient suffered from impending suffocation coming on during pains, due to congestion of an old bronchocele. Would it be proper to operate? Dr. McGraw thought the speedy termination of labor by means of forceps preferable.

Dr. Yemans read the following history of a case of ichthyosis, and also exhibited a plate showing the appearance of the disease: "Ichthyosis is a chronic disease of the skin

characterized by dryness and roughness. It varies in severity from almost imperceptible roughness to large polygonal scales. On the one hand resembling pityriasis, on the other scleroderma an exaggerated ichthyosis. In the mildest cases of the disease there is a deficiency of the sebaceous secretion as well as of perspiration and a harsh or mealy condition of the epidermis. The diagnosis is not difficult, the treatment, or successful treatment is quite difficult. Friction with glycerine, olive oil, *oleum morrhue*, *cosmoline*, vaseline, but neither has more curative effect than to keep the skin lubricated. From its diaphoretic qualities I shall use *fl. ex. jaborandi*; *muriate of pilocarpine* would be quite as useful, but is very expensive. Pityriasis simplex is the only affection to which it bears any resemblance, and here differentiation is not difficult."

Dr. Thuener reported several cases of tonsillitis.

Dr. Yemans aborted an attack of tonsillitis by amputation at the inception of the disease.

Dr. Inglis reported the death of a man who had had his lower dorsal vertabre crushed while riding under an archway on a load of wood; accident happened fourteen months ago. Functions were fairly performed, though there was total paralysis below injury.

January 5th, 1880.

Dr. Robertson reported measles prevailing on Cass farm. In one case after recovery of child, the mother came down with coryza, tracheitis, bronchitis, and finally pneumonia, involving right lung. Quinine was given in twenty grain doses three times daily, reducing temperature from 104° to 100°, recovery; thought to be measles also.

Dr. Morse Stewart, Jr., reported a case of diphtheria.

Dr. Robertson reported the giving of capsicum in capsule causing localized severe burning pain in stomach, undoubtedly due to solution of capsule and deposit of capsicum in one spot. Relieved by draught of cold water.

Dr. Warner reported a case illustrating difficulty of diagnosis, a child sick, chill, fever, temperature 106°, threatening convulsions, and strawberry tongue; expected scarlet fever, but symptoms subsided soon.

Dr. Jenks, being present, reported a case of parturition where trouble had been ex-

pected; patient puffed up, skin mottled, urine 50 per cent. albuminous, headache and nausea. The patient was put on American hemp and the bromides. Patient was a primipara, but the child was born with scarcely any pain and no trouble; thought that 5 per cent. or 10 per cent. of albumen in the urine kept up would foreshadow convulsions; regarded it as an instructive case; good result due to anodynes; never hesitated to give morphine hypodermically in full doses.

Dr. Morse Stewart, Jr., mentioned a case of labor in which twelve hours previous to the delivery of child, there was expelled a sack as large as a child's head filled with an amniotic like fluid.

Dr. Robertson reported sounding a patient for stricture of the urethra in the male and thereby inducing a severe fainting fit; recovery being followed by hysterics lasting half an hour.

Dr. Morse Stewart reported the case of a man who fainted during auscultation.

Dr. Jenks' resignation was accepted and on motion he was placed on the list of corresponding members.

January 19th, 1880.

Dr. Eugene Smith presented a patient whom the society examined with the ophthalmoscope. It was a typical case of lamellar cataract, illustrating the result of proper treatment as compared with the improper handling of such cases. The left eye had been operated on for the extraction of the cataract, probably owing to the supposition on the part of the operator that the entire lens was cataractous, which supposition could only result from insufficient examination, jumping at conclusions as it were. The attempt at extraction was followed, by loss of the eye as might have been expected, and on account of sympathetic irritation, Dr. Smith enucleated the eye, at the same time making an iridectomy on the right eye, which is the proper treatment in such cases. The doctor had had the case under observation many times during the past twelve years, and had repeatedly advised him not to allow himself to be operated on by any one wishing to extract the cataract. Under ophthalmoscopic examination might be seen most beautifully the central lamellar opacity, and the clear peripheral border of the lens which is exposed to the passage of rays

of light by the iridectomy or artificial pupil. Vision is raised in this case from mere ability to get around to ability to read the finest print, or No. 1 of Snellen's test types and to follow the pale ruled lines of writing paper. The patient is forty-seven years old, and sees better than he can remember to have seen before.

Dr. McGraw exhibited specimen of spindle celled sarcoma, removed from right side of jaw near the symphysis. It was three weeks since operation, and there was no sign of recurrence.

Dr. H. O. Walker read an account of two recent operations for stone which he had performed and presented the specimens of calculi. Upon one patient he had performed lithopaxy after Biglow's method. The completion of the operation was delayed on account of imperfect anesthesia, one hour and thirty minutes being consumed. The amount of stone removed was two hundred and eighty-seven grains. The second case was one of lateral lithotomy on a boy, aged sixteen. The stone weighed five hundred and seventy grains. Both cases had a good recovery.

Dr. Morse Stewart, Jr., reported two cases of diphtheria. In the first case where the disease had invaded the larynx, and the child was struggling for breath, in addition to the ordinary iron and chlorate of potash treatment, benzoate of soda was used hypodermically and internally, grs. xv every one and a half hours, also ice, alum and sulphur, under this treatment the child improved, the temperature reduced and lumps of membrane were expectorated. When benzoate of sodium was neglected for a short time, the child grew worse, but improved on administering it again; child recovered. In the second case there was a diphtheritic deposit on the left tonsil. Gave inhalations of benzoate of soda 3 iii to 3 ii, and administered it internally; also gave atropia from $\frac{1}{160}$ to $\frac{1}{80}$ of a grain for its effect upon the throat as well as upon the respiratory centers. The case was fatal.

Dr. Lauderdale thought that possibly it was a case of croup.

Dr. McGraw reported three cases of diphtheria seen in consultation in all of which lactic acid had been used thoroughly, though without avail—two died and one recovered. The doctor remarked that

there were a number of cases among Jewish families, where it had been carried from one family to another by their custom of visiting the sick contrary to the advice of physicians.

Dr. Hawes reported a case of diphtheria which was convalescing when the patient was taken down with measles. On the fourth day of rash, capillary bronchitis set in, but though lung trouble improved, the child sank and died.

Dr. Carstens reported an unusual prevalence of malarial troubles.

Dr. McGraw thought that they had increased in the last five to ten years.

Dr. Heaton also thought so. The doctor said that years ago when he practised in the Lake Superior country cases of pneumonia and deaths from typhoid were of frequent occurrence; typhoid fever and pneumonia were now comparatively rare.

Dr. Carrier mentioned the use of sulphocarbolate of soda which he used in the form of spray in several forms of throat disease, the throat trouble of scarlet fever, for example, with good result; thought that the constant use of a spray of hot water was beneficial independently of drugs used.

Dr. Robertson thought the inhalation of hot water simply would favor endosmosis and cause the membrane to become œdematous, whereas if the solution contained some salt, exosmosis would result, and the membrane would shrivel.

Dr. Jennings reported two cases of typhoid fever in the neighborhood of St. Luke's Hospital; gave quinine in gr. x doses, reducing fever and preventing delirium.

February 2d, 1880.

Dr. H. O. Walker presented pathological specimens comprising heart and kidney from a man that had been shot. Both ventricles had been pierced, yet the man lived from five and a half o'clock till twenty minutes to nine. The pericardium and pleura contained blood.

Dr. Mulheron reported a somewhat similar case that had come under his observation some three years ago. At the autopsy it was seen that both ventricles were pierced, yet in life the heart sounds were so distinct that it was a matter of doubt whether the heart had been wounded or not. The case lived from half past eleven at night till ten o'clock the next morning.

Dr. Walker said that there was on record

another case in which the patient survived the injury eighteen days.

Dr. Carstens reported measles as still prevailing.

Dr. Morse Stewart, Jr., reported the farther use of benzoate of soda in diphtheria in doses of grs. xv every hour; the case terminated fatally.

In a second case the hypodermic injection of atropia over the vagus was followed by better breathing, the breath being drawn longer, slower and easier. The child finally strangled from coughing up membrane and its remaining in the glottis.

February 16th., 1880.

Dr. H. E. Smith reported the prevalence of measles and bronchial troubles in children.

Dr. Lundy reported a number of cases of ear trouble associated with measles in children.

Dr. Mulheron spoke of two cases of pneumonia, there being nothing peculiar about them except the readiness with which they yielded to treatment; one case was treated with quinine grs. vi, every two hours till seven doses were taken, and poultices were applied externally. The doctor thought the quinine had a very decided effect. The reduction of temperature was very marked.

Dr. H. E. Smith had not had such good results from the use of quinine in pneumonia.

Dr. Morse Stewart, Jr., had seen good results from venesection in suitable cases.

Dr. Shurly reported a case of melanoderma in a patient subject to pediculæ. The whole body, excepting face, neck and hands, was of a dark mulatto color. The patient was treated with diachylon ointment and carbolic acid in vaseline.

Dr. Yemans reported a case of purpura hemorrhagica; in a warm room urticaria would appear and then disappear in the cold.

Dr. Walker reported an operation for strangulated hernia, in which he had removed the cœcal convexity of the intestine and left an opening externally.

Dr. Johnson reported a number of cases of diphtheria. He had had three cases of a severe type in one family, two of which were fatal, dying within thirty-six hours of the attack.

Dr. Carstens reported a number of cases of conjunctivitis and sore throat.

Dr. Johnson said that in the families

where diphtheria existed, he used atropia in solution as a prophylactic with seeming good success. He used it for its action on the capillaries, gr. $\frac{1}{100}$ every three or four hours to children three or four years of age.

Dr. Shurly had a case of pharyngeal diphtheria which attacked only one child in a family of five. Ordered isolation, but was not successful in having orders obeyed; the case recovered, and no others of the family were attacked. Gave benzoate of soda grs. x every three hours, also a powder of alum, sulphur and bicarbonate of soda.

Dr. Hawes reported a case of membranous croup which ended fatally.

March 15th, 1880.

Dr. E. Smith exhibited a flake of steel removed from an eye. It had passed through the lid and entered the sclerotic, a physician had removed it, but an inflammation of all the tissues of the eye had ensued. Paracentesis of the sclerotic was performed. The case was presented to show that slight injuries of the eye were not infrequently followed by panophthalmitis or inflammation of all the tissues of the eye. The doctor mentioned another trivial injury of the eye that was followed by the same difficulty.

Dr. Lauderdale inquired what was the proper treatment in such cases, and Dr. Smith replied that absolute rest of the eye and body with a cold compress applied to the eye and confinement in a dark room would be proper.

Dr. Walker exhibited pathological specimens taken from a woman who was supposed to have poisoned herself. Two specimens from both lungs in the first stage of pneumonia were exhibited, also the uterus and appendages; one ovary with a recently ruptured Graffian vesicle. On the other one was shown the parovarium or body of Rosenmüller. The doctor exhibited Biglow's improved apparatus which possessed some advantages over the old evacuating instrument.

Dr. Yemans inquired if any bad results followed the introduction of air into the bladder. Dr. Walker thought not, but that the deaths happening after the use of this instrument were the result of injury. Bumstead's improvement on Maisonneuve's instrument for the division of stricture was shown.

Dr. McGraw thought with the instrument it was possible to cut some other portion of

the urethra besides the stricture. Dr. McGraw then read a paper on abdominal abscess.

Dr. Eugene Smith spoke of having seen with Dr. Lauderdale years ago a case of abdominal abscess. At that time there was doubt of its being so, owing to the absence of the usual symptoms of abscess, but on the introduction of a bistoury a large amount of pus was discharged. There was then some discussion concerning the peculiar fecal odor of the pus in abdominal abscess and its cause.

Dr. Carstens asked if it was established that there was an osmosis of gases through intestines and peritoneum, etc., he doubted it himself.

Dr. McGraw said that he had cut down on a good many abscesses, and never got the peculiar fecal odor referred to anywhere else.

Dr. Douglas said that abscess of the tonsils had a somewhat similar odor, though not as bad.

Dr. Mulheron mentioned two cases of abdominal abscess which he had seen. In one case the physician inserted a bistoury and evacuated a large amount of pus, and discovered afterwards a fistula of the duodenum. In the second case there was a mistake in diagnosis, the symptoms, constipation, etc., indicating impaction, but finally an abdominal abscess was discovered. Strange to say after its evacuation the bowels moved off freely.

Dr. McGraw said there was no doubt, but that gases did pass through animal membranes as in breathing, and he wanted to know if gases regularly passed through the envelope of the intestines.

Dr. Eugene Smith reported a large number of cases of catarrhal conjunctivitis extending through entire families.

Dr. McGraw spoke of the frequency of catarrhal complaints and the relation of tooth and ear troubles, having had a personal experience of such.

Dr. Walker reported the case as doing well on which he had operated four weeks ago for removal of the cæcum.

April 5th, 1880.

Dr. Eugene Smith exhibited three eyes which he had removed. One of them contained a piece of steel resting on the ciliary body and surrounded with a deposit of plas-

tic lymph. The doctor also exhibited an eye which presented well marked ossification of the ciliary body.

Dr. McGraw presented a cystic tumor of lower jaw which he had removed sub-periosteally so that regeneration might take place. The cyst contained nothing but air, though it was of good size. The doctor spoke of the prevalence of catarrhal trouble of the middle ear during the past month.

Dr. Eugene Smith deprecated the use of oil and laudanum, and said that nothing was as good as hot water dropped into the ear and leeches applied just anterior to the tragus.

Dr. Carstens had seen recently considerable rheumatism in children which was alleviated by the external use of hot salt-water and internally salicylic acid. He also reported two cases of inflammation in the neighborhood of the cæcum, two in his own practice and one other. In one case symptoms of obstruction were followed by death, in the other leeches were applied, and relief followed. In reply to a question, the doctor said he had used opium.

Dr. McGraw said that in his experience in such cases, pus was to be found.

Dr. Shurly asked if there being a board like feeling, he would open up.

Dr. McGraw replied affirmatively, provided there was pus which could be ascertained with exploring trocar.

Dr. Heaton said that he treated such cases with morphine as he would one of peritonitis and also applied leeches, and that he recollected no deaths in his practice.

Dr. McGraw said that when such cases presented typhoid symptoms, pus was usually to be found, and should be evacuated. The doctor inquired if recovery was not due to early interference.

Dr. Heaton thought it was and therefore was inclined to believe in the efficacy of medicine and early interference.

Dr. Warner reported one case of diphtheria where the larynx was involved, recovery; also a case of typho-malarial fever, beginning with nose bleed, brown tongue, etc. The quinine had no effect, but finally the fever stopped of itself.

Dr. McGraw reported a case with typhoid symptoms where the temperature went down after two days, and there was no farther rise. The other symptoms were as usual.

Dr. Shurly reported a somewhat similar case, but in which the man's ordinary pulse was about 50.

April 19, 1880.

Dr. C. C. Yemans exhibited an interesting acephalous monster sent in by Dr. Herbert Yemans, of Oxford, Mich.

On motion of Dr. Shurly the secretary was instructed to send a vote of thanks.

Dr. Lundy reported herpetic troubles of the eye and acute suppurative inflammation of the middle ear. Thought it was noticeable that there were many cases of catarrh of the middle ear following measles during past season.

Dr. Walker reported a case of stricture sent him by Dr. Cleland. It was an old case and at the time there was great difficulty in passing urine; was temporarily relieved by aspiration, and finally a tunnel sound was passed over a filliform bougie. Afterwards there was a periurethral abscess through which urine was passed. It was eventually healed. This was followed by epididymitis.

Dr. Hawes inquired if urethritis occasionally followed operation. Dr. Walker replied that it did.

Dr. Carstens exhibited an interesting mass resembling hydatid cysts which had been expelled from a woman.

Dr. Cleland thought that possibly it was a degenerated placenta.

Dr. Hawes reported the case of an old gentleman who had suffered from a run away, recovering, however, in a few days. In a week afterwards his right arm swelled, had a boggy feeling. It was poulticed, and opened up disclosing pus above and blood below the elbow.

Dr. Carstens reported two cases of erysipelas.

Dr. Heaton reported a continuance of cases of sore throat, showing strong climatic influence. The doctor also said that he had had a continuance of cases of inflammatory rheumatism since last October. Had tried every variety of treatment. There was a frequent occurrence of chills in his cases, and he thought he had had good results from large doses of quinine.

Dr. Shurly said that without quinine he had had no success recently. In his practice in the mines he had given large doses of iodide of potash and morphine. He liked its effect in large muscular men.

Dr. Carstens indorsed Dr. Heaton's remarks on the use of quinine and recommended that it should be followed by iron.

Dr. Wyman inquired as to the comparative good results from soda salts and the old treatment with guaiac.

Dr. Heaton said thirty years ago the wine of the root of colchicum was largely used, also the lancet, calomel and opium, but often under such treatment cases lasted from three weeks to six months. He thought salicylic acid often acted well, but that it was liable to fail at any time.

Dr. Morse Stewart, Jr., thought that salicylic acid combined the therapeutic effect of quinine and the alkalies. It should be given in large doses.

Dr. Carstens did not think much of colchicum and guaiac. They eliminated lactic acid, but did not prevent its formation.

Dr. Hawes thought colchicum was not given in sufficient doses; given in doses sufficient to act on skin and bowels it rendered good service.

Dr. Shurly said the theory of Fuller represented only one of the conditions of rheumatism. The treatment with alkalies introduced another poison into the blood. The disease was self-limited, and the introduction of poisons prolonged it; had found treatment with the vegetable acids, as lemon juice, beneficial. Dr. Flint had demonstrated that the disease was self-limited.

May 3, 1880.

Dr. Lundy exhibited a patient and gave a history of the case as follows:

ABSCESS OF THE CORNEA WITH SLOUGHING AS THE RESULT OF CONTINUED POULTICING.

The patient whom I have just shown to you, came to consult me some time since, and presented the following history and conditions. After exposure to cold the left eye became inflamed, and in the mornings the edges of the lids were glued together. He probably had a catarrhal conjunctivitis. He applied poultices of bread and milk and of slippery elm pretty constantly for five or six days before coming to consult me. At the first consultation the following notes were made: Thick pus flowed from the eye down upon the cheek. The lids were very much swollen and œdematous. The palpebral conjunctiva presented a fungous appearance, and on the slightest motion blood oozed from it at every point and trickled down

over the cheek. Chemosis (swelling of the bulbar conjunctiva) was so great that only a small portion of the cornea could be seen. This (the cornea) presented a necrotic appearance, and I feared that the entire cornea might slough away. Of course, no view of the iris, or of the deeper structures could be obtained, owing to the opaque condition of the cornea.

I made several incisions in the swollen conjunctiva, and permitted free bleeding. With the cotton probe, applications of nitrate of silver (gr. x ad $\frac{3}{4}$ j) were made twice daily to the everted lids, and hot water applications were ordered for fifteen minutes every two or three hours. On the third day the swelling of the lids and the chemosis were much reduced. The upper portion of the cornea began to clear up, and at the lower part there was a well defined abscess.

Scarification of the conjunctiva was repeated several times, the hot water applications were continued, nitrate of silver (gr. v. ad $\frac{3}{4}$ j) was now dropped into the eye, the use of sulphate of eserine was begun and a pressure bandage was applied.

On the fifth day the abscess opened outward, the external layers of the cornea at this point sloughed away, the aqueous humor escaped, and the lower edge of the pupil came in contact with the corneal wound, or edge of the abscess. Eserine was then instilled every three hours, and by powerful contraction of the pupil it was drawn away from the corneal opening. The hot water applications and the use of eserine were continued as was also the pressure bandage, and on the ninth day the walls of the abscess showed signs of healing. From the time the abscess opened till healing began, and for several days after, the membrane of Descemet protruded like a little bead at the site of the abscess. This was punctured from time to time, and the escape of the aqueous humor was permitted. The pressure was thus relieved, and a greater protrusion prevented. Had this protrusion of Descemet's membrane been permitted to continue, it would have prevented healing of the outer layers of the cornea by stretching them apart, and finally it would have led to staphyloma of the cornea and probable loss of the eye.

By the twelfth day much improvement had taken place, the cornea was clear in the

upper half, and there was but little secretion and this was of a muco-purulent character.

From this time forward improvement was gradual but steady, the treatment consisting in the main of eserine, the application once daily to the everted lids of a solution of nitrate of silver (gr. v, ad $\frac{3}{4}$ j), hot water applications and the use of the pressure bandage as long as there was any tendency to corneal staphyloma. At present there remains in the lower part of the cornea a tolerably dense leucoma which is scar tissue, and which is the result of the healing of the abscess.

Vision is about one-third of the normal. This is an interesting and instructive case inasmuch as it shows very forcibly the danger of poultices to the eye. Many of the laity think poultices are good for almost any form of inflammation; and I am sorry to say that physicians sometimes order poultices to the eye, or ear, when such poultices can only do mischief—and occasionally, irreparable mischief.

In answer to the query of Dr. Hawes, for what purpose the poultice was applied, Dr. Lundy said he did not know. He had, however, known of urine and cow manure being applied to the eyes with very serious results, and he had had one case lately where serious trouble resulted from washing the eyes with urine in which there was some pus.

Dr. Carstens read a paper on uterine cancer. In this case there had been a lacerated cervix which he believed was the starting point of the cancer.

Dr. Hawes reported a case where a post mortem verified the diagnosis of cancer, but where he was unable to discover evidences of laceration.

Dr. Lauderdale thought the application of zinc as indicated in Dr. Carstens' paper a little severe.

Dr. Heaton wished to inquire concerning an eruption which was prevalent. It began as papular, becoming confluent, but was without the eye or throat trouble of measles.

Dr. Carstens said they were cases of German measles, or r  theln.

Dr. Jennings reported a similar case where the thermometer showed no rise of temperature.

Dr. H. E. Smith said that two such cases had appeared in a family where there had been previously measles.

Dr. Cleland inquired of Dr. Heaton if he had seen the same eruption twice in the same patient. The doctor replied that he had not.

Dr. Carrier reported a similar case, in which the diagnosis was at first doubtful, but in three months the child had measles.

Dr. Cleland spoke of a case, the child having this eruption three consecutive years. There were no catarrhal symptoms, and he was confident it was not measles.

Dr. Heaton reported the case of a girl, thirteen years old, who had had such an eruption with cough, lachrymation, sore throat, etc., passing away in three days.

Adjourned.

• WILLARD CHANEY, M.D.,
Secretary.

British Medical Association—Report of its Forty-Eighth Annual Meeting.

BY J. MILNER FOTHERGILL.

The great event in medicine of the past month has been the Forty-Eighth Annual Meeting of the British Medical Association at Cambridge. It met there in 1866; so this is its second visit to the Eastern university town. Cambridge looked lovely in the brilliant sunshine, the heat being tempered by a breeze from the north-east; so that it was not oppressively hot, as it otherwise would have been. Of course, too, it was also an attractive place, and consequently there was a very large gathering. The in-coming president, Professor G. M. Humphrey, delivered an address at the first general meeting, in which he traced the history of medicine in the University of Cambridge, and pointed to its present flourishing condition. A noble block of buildings, which furnished space, if not quite ample space, for the large attendance on the different section-meetings, and for experiments, etc., testified to the vitality of medicine there, proving quite a contrast with its position in the sister university of Oxford. It is a well known fact that, under Professor Michael Foster, physiological research is flourishing famously at Cambridge, and he is well supported by Professor Humphrey; so that there is quite a band of workers established there. Thus, we can boast of one good physiological school in our universities. The meeting was amused by a prominent medical member of the teetotal party moving that in the future the dinner-tickets should not include wine; but, as the

motion did not affect the present dinner, the matter was referred to the council. It is a little matter, but it shows that this active party misses no opportunity of pushing its views before the public.

Next morning the address on Medicine was delivered by Dr. J. J. Bradbury Linacre, Lecturer on Physic at Cambridge, on "Modern Scientific Medicine." in which he ably reviewed what was now being done with instruments of precision. It was an able *résumé*, very creditable to the speaker, who is a comparatively young man of promise. The next thing was the conferring of the honorary degree of LL.D. upon a number of distinguished persons. This ceremony is one in which the undergraduates feel themselves bound to take much interest and to express their opinions with much freedom. Though it is the "long vacation," a large number of men remained "up" working at their different subjects; consequently there was a large crowd of them in the Senate-House on this occasion. The gentlemen selected for the honor were Brown-Séquard; Denders, of Utrecht; Gross, of Philadelphia; Sir W. Jenner; Sir William Gull; Sir George Burrows; W. Bowman, the ophthalmic surgeon; the Rev. Samuel Houghton, ("the cleverest man in Ireland;") the ex-President, Dr. O'Connor, of Cork; Lister, of antiseptic fame; John Simon, C.B.; and Andrew Wood, of Edinburgh.

All went well and smooth enough, with the usual amount of jest and comment, except when Sir William Gull's turn came; then there was a "proper shine." How the undergraduates became acquainted with the said baronet's recent conduct it is impossible to say, but their condemnation was certainly emphatic. Sir William Gull has taken upon himself to act very strangely at times, and not only to ignore the opinions of other members of the profession, but even openly to flout them. When the ex-Emperor Napoleon died at Chiselhurst, Sir William Gull chose to dissent from the views of the other eminent medical men present, and expressed an individual opinion of his own about the cause of death, though he would never give to the world any exposition of it, even when challenged to do so by the late Emperor's Parisian medical attendants. Then in the notorious "Bravo" poisoning case his conduct towards Professor George Johnson, of King's

College, was such that it was brought before the College of Physicians, and, whatever happened in their committee, his conduct was unquestionably condemned by the profession generally. Then in this recent row at Guy's Hospital he has figured very badly. A nurse under the new régime was recently tried for the manslaughter of a patient and condemned to three months' imprisonment. This patient, according to Dr. Pavy, whose work on Food is so well known, suffered from pulmonary phthisis, and he gave evidence accordingly. This patient, unfortunately, soiled her bed, and for this she was punished, as well as cleaned, by being put into a bath with much harshness by the nurse, without medical authority, and left there for a considerable time. After this the patient got rapidly worse, and died. The verdict and the sentence testify to the opinion of the jury as to the treatment she received. When the nurse was tried, who should voluntarily appear for the defence but the well known baronet, who is the Senior Consulting Physician to Guy's Hospital, on which pretext in the witness-box he chose to air his views on the subject of tubercular disease of the brain, of which, in his opinion, the woman died, the bath exercising no influence over the necessarily fatal result. This last outrage brought down on him swift punishment. Howls, shrieks of derision, shouts of "Pavy!" met him in one continuous roar, till the place was a perfect Pandemonium. Of course, the students were set on by the members of the profession, and the few and feeble protests of those who dissented from the general opinion were lost in the din of the majority. So long and so vigorous was the condemnation of the baronet that the scene became very trying to the spectators, whatever may have been the subjective sensations of the object of their indignation. Such a reception has never been given to any one else in the memory of man, and will never be forgotten by any one present. It is to be hoped that the conduct which provoked it will not be repeated. Even a fashionable medical baronet cannot do just entirely as he likes without being brought before the tribunal of medical and public opinion sooner or later. This was the only unpleasant event which marred the harmony of the meeting, which, on the whole, was a great success.

Then came the inspection of the museum

and the exhibited objects,—instruments, new preparations, inventions of various kinds, and last, and not least in that hot August weather, an unlimited supply of that delightful non-alcoholic drink, *zædone*. The spirited proprietors of this beverage took this opportunity of advertising their product, and, the weather proving a valuable ally, their success was complete as regards inducing the different members to taste and retaste the sparkling drink.

At two in the afternoon the different sections set to work in good earnest. It would be impossible to give any account of the different papers read. One of the most interesting communications made was the combined work of Professor Ferrier and Professor Gerald Yeo, of King's College, on "Surgical Injuries to the Brain treated Antiseptically." Their results are most valuable. Under this plan of treatment the injuries inflicted—*i.e.*, excisions of various portions of the rtiportion of the brain—healed up most kindly. The animals were then carefully observed for months after. When the time came to examine the brains the wounds were found to have healed with the most gratifying freedom from any inflammatory extension of the injury, the photographs showing the sharpest outlines of the original injury; consequently the precise results of the lesions could be gauged without complications from subsequent inflammation obscuring them. The results attained, I understand, will do much to clear away difficulties which exist at present, and to harmonize the conflicting views of different observers. Then there was a discussion on hysterical anæsthesia, on which there were some considerable differences of opinion expressed, as might be expected. There was also a discussion on the effects of alcohol in the causation of insanity, inherited and other. Then there was a discussion on the seat of the formation of urea in the body. In the surgical section the treatment of wounds was discussed, Professor Lister being to the front.

On the Thursday Professor Preyer, of Jena, commenced a discussion on "Sleep and Hypnotism," which was certainly interesting. A section on Ophthalmology and a sub-section on Otology did good work. Dr. Swanzy had some Holmgren's skeins of different colored wools, and a very large number of men had their vision tested for color-blind-

ness. Having distinguished or failed to distinguish the various colors and shades of color, and then being told that was enough, a number growled at nothing more being done. They failed to see that the object of Dr. Swanzy was merely to ascertain the fact of what proportion of educated men, who were not merely "color-stupid," were actually "color-blind" when tested by these skeins.

Friday was opened by an address delivered in the physiological section by Professor M. Foster. It was listened to with rapt attention. The practical line he took was similar to that taken by Henry Power at the Cork meeting last year, *viz.*, that a knowledge of physiology is of the highest practical value to a medical man in his every-day walk in life. His anatomical knowledge is useful to him frequently, but physiological knowledge will stand him in good stead several times in every working day of his life. It is only reiterated expressions of individual opinion which can reach public opinion, and the profession are slow to take up these, to most of them, novel views, entailing their forsaking a lot they think they know, and taking up a new study the difficulties of which at the outset they keenly appreciate, but whose practical, ultimate value does not loom up very distinctly in the distance to their vision. Yet, the longer one lives, the more the number of cases troublesome to manage from impaired assimilation that come before one's notice, the more one sees of intercurrent disturbances of digestion in the course of disease, acute or chronic, and the more one feels the need for advanced physiological information. The appreciation of Professor Foster's address demonstrates that a large proportion of the profession are waking up to the importance of the subject, and in time a great change will be wrought.

Then there were, of course, the different meetings of the various committees, which, if not of general interest, certainly are a god-send to a number of enthusiasts and busy bodies, who blow off steam, and so relieve themselves on their pet hobbies, annually, even if their work does not produce that far-reaching influence they aspire to create.

Finally, there were the entertainments of various kinds. As the colleges were largely empty, they put a number of their spare rooms at the disposal of their authorities,

and a number of us had an experience of the life of an undergraduate. We breakfasted "in hall" in the college dining-room; then we dined "in hall" and had dessert and wine in "the combination-room;" after which one conspicuous member of the profession committed the enormity of lighting up a cigar and marching over the grassy plot of the quadrangle, innocent of his offence, and setting a bad example to all the undergraduates, for which he was properly censured after being allowed to commit the offence. We learned to comprehend practically the phrase of "sporting one's oak,"—that is, locking the stout oaken door which protects the industrious student from invasion when he wants to be undisturbed. We became familiar with the proper dame, "the bed-maker," and that useful attendant locally known as a "gyp," and with "the buttery," whence eatables and drinkables are furnished. There is a venerable sense of respect for the past—a social conservatism—quite pleasant in these old buildings. The old man who presided over the buttery of Corpus College had been born within its precincts, and, man and boy, been there one-and-sixty years, and was distinctly in good preservation. The cloacal arrangements were distinctly mediæval, and among the students of old, disturbances of the bowels, so common amidst the degenerate persons of the present generation, must have been unfrequent or even unknown. The fine weather made these arrangements less irksome than they would otherwise have been had we had wet nights.

The general entertainments were splendid, and were the source of favorable comment from everybody. On Wednesday evening the *soirée* of the President and the Reception Committee was held in the grounds of the Fitzwilliam Museum, and was largely attended. The museum itself was lighted up with the electric light, while the garden-walks were hung with Chinese and Japanese lanterns. On the Thursday was held the annual dinner, with the usual laudatory speeches after it. This year the room would hold only a certain number, and it seems to have been well served: so there was less than the usual amount of grumbling. On Friday afternoon a garden-party was held in the Fellows' garden of King's College. This garden is beautifully situated to the west of the Cam, which river runs through the grounds

of several of the colleges. It was a beautiful retired spot, the very *beau-ideal* of a garden in which to hold a party. Some excellent music made it all the more attractive to most people, and all seemed to enjoy themselves thoroughly. Certainly, a garden-party is a capital institution, especially in the magnificent weather which favored the gathering. The whole concluded with a *soirée* in the grounds of St. John's College in the evening. This was the crowning feat of all. The moon shone brightly over a thick belt of trees; long walks were hung with every variety of paper lantern, of every shape and hue; the evening was balmy, while a pleasant breeze relieved all from any sense of oppression; amidst the strains of music were heard voices in the distance. Slowly came in sight along the Cam a barge hung with pennons and streamers, illumined with paper lanterns, and containing a number of songsters, who sang glees. The whole formed a scene of magic beauty, and will never be forgotten by those who were fortunate enough to be spectators thereof.

Such, then, was the finish of our round of entertainments, and next morning all were bustling about, either going on some of the excursions or hastening back to town to take their wives and families to the sea-side.

These annual meetings, so largely attended, are very useful for the spread of professional information, bringing a lot of men in the country in contact with the most recent information, and also for welding the profession together socially. Men from personal knowledge learn to have confidence in other men living far away; and the Association is beginning to have a collective voice, which must be listened to after a time by our legislators, and which will counteract those unfortunate impressions made by the misconduct of individuals, which has done so much to keep down the status of the profession and to forfeit that respect which, as a whole, it deserves. Individual laches will be lost in an aggregate of social respectability, and the Association will win for the profession a position more or less commensurate with its deserts.—*Phil. Med. Times*.

The Mill Creek Sewer in Philadelphia has a 20-foot diameter; the Mill Creek Sewer in St. Louis is 15x20 feet; the Fleet Street Sewer, London, is 12x18 feet; the largest sewer in Paris is 18x15 feet.

The Detroit Lancet.

LEAETUS CONNOR, A. M., M. D., EDITOR.

Preliminary Examinations at American Medical Colleges.

UPON the above point we have examined the catalogues of sixty-three regular medical colleges for 1880-81. Of these only fifteen advertise any preliminary examination. The nature of this examination may be termed definite in six of the announcements, and indefinite in nine. As a type of what we mean by definite, we may quote the examination at the Medical Department Yale College: "(1) Mathematics: algebra, to quadratics; Euclid, two books; metric system of weights and measures. (2) Latin, translation of easy prose, or of Virgil's *Æneid*. (3) Physics: Balfour Stewart's elementary physics, or any equivalent work."

As a type of what we term an indefinite preliminary examination, we quote from the catalogue of Medical School of Maine: "Candidates for matriculation will be examined, to give evidence that they possess a good English education."

The colleges advertising a definite preliminary examination are:

1. Harvard Medical School.
2. Medical Department Yale College.
3. Bellevue Hospital Medical College.
4. Medical Department University of Pennsylvania.
5. Michigan College of Medicine.
6. Detroit Medical College.

The colleges advertising an indefinite preliminary examination are:

1. Medical School of Maine.
2. Dartmouth Medical School.
3. Albany Medical College.
4. Medical Department Howard University.
5. Medical Department Michigan University.
6. Chicago Medical College.
7. Medical College of the Pacific.
8. Woman's Medical College, Chicago.
9. St. Louis College Physicians and Surgeons.

Of these lists, seven belong to the West and eight to the East, three to Michigan and two to Detroit. In three of the colleges it is stated that applicants failing to pass the required examination may be conditioned, as is the custom in literary colleges. Such are the facts respecting the preliminary examinations of American medical colleges. It is proper for the profession to be fully conversant with them, that they may exert what

influence they have in favor of medical reform.

Is it questioned by any one familiar with medical students that even the feeblest of the afore-mentioned standards is an advance—is a reform? Let the doubter simply examine the recent graduates from any of the schools not having such a matriculation examination, or let him examine the classes in any such school, or all such schools combined. From a judgment based upon a considerable observation we are quite sure that not half could pass an honest examination satisfactorily. The absolute requirement of a "good English composition" alone would shut out of medical colleges half the applicants. This is well understood by the colleges, so that less than one-fourth have had the courage to diminish the size of their classes by making any requirement at all; while about one-tenth make any definite requirement. Will honest members of the profession, and honest editors who have the advancement of medical education at heart, encourage the colleges in the advance they have made? If they do this faithfully, with half the self sacrifice of the advancing colleges, the latter will be so supported that they can make other and larger requirements. It is to be hoped that the profession and the medical press will see that the colleges do exactly what they promise, and expose any discrepancies between the promises made on paper, by announcements or otherwise, and the real performances, as seen in the actual operation of the colleges. It will be a reform indeed when such announcements can be said to represent the real truth. It will be a reform when the profession may know exactly through what training the possessor of a degree of doctor of medicine must have passed. What colleges are there that have inflexible requirements?

The American Medical College Association has endeavored to make such a reform as to afford such knowledge to the profession. Colleges, medical editors, and others who believe in the old methods because more profitable to themselves and their friends, have been and are opposing these endeavors. The strongest opposition comes from the oldest colleges in the oldest cities, and the journals that labor in the interests of these colleges. Appearances seem to indicate that further reform in medical college

matters must be carried on by the younger schools of the West and South.

Truly, a preliminary examination, be it much or little, does not constitute a full appointed medical college, but it is a very important element in such a college. Other elements being equal, it certainly enhances the quality of material received into the college classes, and so the material annually graduated. Why do not all colleges establish a preliminary examination, even the very smallest? Simply because they know it would diminish the size of their classes, not because they do not believe it is the right and proper thing to do, not because they personally would not prefer better educated material to work upon, not because they are not fully aware that the quality of the profession would be improved thereby.

Since they are to be influenced by the size of their classes, let the practical reformers in the profession see to it that medical students are sent to the colleges that have established advanced requirements, and live up to them. In this way the profession could soon demonstrate to all colleges that it was profitable to heed the signs of the times. This demonstrated, even the older schools would quickly establish preliminary examinations, and time-serving medical journals cry with amen.

Color Blindness Mania.

In the furor over color blindness it is pertinent to ask is it a dangerous element in a sailor or engineer? At this moment we are unable to recall any case in which harm has come to any public conveyance from the presence of color blindness in any of the attaches of such conveyance. If this be so, is it justice to disqualify men by law from being engineers, captains, etc., because of their color blindness? A case in point was related to us by a legal examiner. A captain on one of our lake steamers was brought before him and found to be perfectly color-blind. His testimony, and that of his employers and acquaintances, showed that for over forty years he had managed various crafts on these inland lakes with perfect safety. No accident had befallen any. Further, it was demonstrated that while unable to detect the red from the green light in the examining room, when once brought to the natural test on the water he could recognize the position and course of the sev-

eral vessels on the water with an ease and readiness unapproached by his examiners. Yet such a man was thrown out of his employment on what seems to us purely arbitrary grounds. Is this either science or justice? This man and others can distinguish the different signals by other qualities than that of color. It seems to us unjust to exclude men from their trades on any such basis.

Clinical Instruction.

From the Cincinnati *Medical News* it appears that students complain that the clinical instruction given at the great Cincinnati Hospital is a farce.

The lecturer brings a patient before a large class and talks on what he knows concerning the disease which, he says, has attacked the patient. Well, in so far as we are aware, the same statement may be made of all the large medical schools. The clinical teaching afforded to and the clinical study demanded of their senior classes are, in method, the same as that concerning which complaint is made. The difference between the several large schools lies solely in the personal ability of the clinical teacher to talk in an interesting manner concerning the disease etc., affecting any particular patient. It cannot be otherwise so long as from six to ten men attempt to teach all medical knowledge to a class of from three to six hundred students, during two terms of from four to five months each.

The defects are (1) in the insufficient number of teachers; (2) the insufficient length of term; (3) the inadequate number of terms. It would seem reasonable to affirm that there could be no satisfactory clinical instruction except to students who had thoroughly mastered the fundamental elements of medicine and surgery, and that the section under any given teacher should be no larger than could permit each member to see, feel and hear all the essential features of the case capable of a physical demonstration. We know that in Detroit such instruction is not only afforded, but absolutely required of every member of the graduating class for one full term. There is no reason why similar clinical instruction should not be given by every school with sufficient hospital facilities. The requisition of *three terms* ere conferring the degree of M. D., would do much in paving the way for the introduction of a real prac-

tical system of clinical instruction. Meantime, it is to be expected that increasing dissatisfaction will be exhibited by the best grade of medical students until all schools shall afford the facilities for and demand the performance of real practical clinical work in every branch of medicine and surgery.

Prescribing Pharmacists.

New Remedies says: "The present tendency to the spreading of information appears to favor an increase among pharmacists of a knowledge of the therapeutical as well as of the physical properties of drugs, and it is by no means easy to foretell the effect this may have in large cities." In short, the writer thinks that counter prescribing may absorb much of the medical practice. It is of the opinion that the recent medical law of New York will not be enforced against prescribing pharmacists. In short, these latter individuals must be let alone to mix pills or practice medicine without a medical education, just as the lines of trade indicate as the most profitable. Should the process of evolution work in this way, physicians would be compelled to prepare their own medicines or have them prepared under their own direct supervision. Were this done to-day we believe that the results to the people would be far better, in so far as the relief of suffering is concerned.

The doctor being responsible for everything connected with the medication of a case, and being perfectly familiar with the peculiarities of each special preparation could do better work. The patients also would rest in firmer confidence upon their medical advisers. The tendency of the times seems to show that we are likely to drift back into the old ways again. Certainly, if the pharmacist is to be developed into a doctor, the doctor, in self defense, must be developed into a pharmacist. Then each will be on an equal footing in the struggle for a common end.

Medical Legislation.

Our attention has been especially called to this subject by the following circular letter:

A CALL TO THE REPUTABLE PHYSICIANS OF MICHIGAN.

The following letter has been authorized by the Union Medical Society of Wayne, Washtenaw and Oakland Counties, and has

been sent with the request for publication to the medical journals of the State. It is hoped that every regular graduate of medicine in the State will take sufficient interest in the matter to respond to the letter. Let every one reply if it is only to signify his willingness to co-operate with those who do present plans or suggestions for the presentation of the bill:

ANN ARBOR, Mich., Sept. 2, 1880.

DEAR DOCTOR—At a meeting of the Union Medical Society of Wayne, Washtenaw and Oakland Counties, held this day at Holly, Mich., I was authorized as the representative and a member of that society to correspond with other medical societies and individual members of the profession throughout the State, in regard to taking steps to petition our next Legislature to pass a bill regulating the practice of medicine in this State. The use of such a law is too well known to you to require a statement from me. Our State has now within its borders more than one hundred men holding diplomas from the fraudulent schools of Philadelphia, which have so disgraced the country. Nearly three hundred more, driven by the law from Illinois, have settled in our western counties, while the laws of other States have added many more to this number. Nearly every community knows of some irreparable injury done at the hands of these ignorant men. Shall Michigan continue to be the receptacle for all this filth cast out from other States and Canada?

Members of the last Legislature state that the principal cause of the failure of the passage of the bill at that time was the want of agreement among those asking for the passage of such a bill. Our society is desirous of securing unity of action among the profession throughout the State on this subject, and for this purpose we ask you (individually or through your local society) to send us forms of bills, suggestions or anything that you may deem of value on this subject. Our society asks that every regular graduate of medicine in the State, seeing this letter, will consider himself as addressed personally and will let us hear from him individually or through his local society as soon as possible. (Officers of societies, in sending communications, will please give name of society in full and number of members). Let it not be said any longer that Michigan has no law regulating the practice of medicine, because the physicians of the State will not work at all, or will not work together on the subject. It is the duty of the profession to agree upon and present some bill to the Legislature.

Your correspondence will be turned over to a committee, which will endeavor to comply with the wish of the majority (all agree-

ing to be governed by the majority), and you will be notified of further action in this matter.

Address communications on this subject to
V. C. VAUGHAN, M. D.,
Ann Arbor, Mich.

None more heartily than ourselves desires to see the benefits to be derived from the operation of a good law regulating the practice of medicine. Several years since we were very earnest advocates of a particular law which failed to pass our Legislature. Since then we have studied every one that came to our notice and endeavored to ascertain the effects of their practical workings.

Why has not a suitable law been in operation for years? Broadly speaking we may reply, because the people do not want a law of this sort. Why do they not want it? Because they see no danger to themselves in the existing state of affairs. Were they to be convinced that a medical law would promote their good, no difficulty would stand in the way of their enacting such a law and of the rigid enforcement of it. As from the nature of the case, any medical law must be both enacted and executed by the people outside of the profession, it is of the highest importance that this sovereign people should be so instructed as to voluntarily undertake the above named task. Now, as a matter of fact, are the people of Michigan thus instructed? If an effort is to be made to pass a bill at our next Legislature, we certainly hope that the above inquiry may be answered in the affirmative. Again, is the profession agreed upon any other thing than that it would like some way by which its financial receipts could be increased? There are so many doctors—good, bad and indifferent—that they crowd one another at the elbows too much for comfort or profit. Hence, the outsiders look upon efforts made by the profession for the passage of a medical bill as the outcome of selfishness, as the confession that it cannot stand free competition, as a yearning for protection. It is questioned whether much would be said or done in the matter by the profession if each individual was making all the money he desired to make—at least, so outsiders maliciously say. Moreover, they suggest that over-crowding in the medical profession has grown out of the notion that in this calling the largest gains will result from the least work, or

briefly, the members of the medical profession have a "soft thing."

Now, it seems to us clear, in view of all this and more in the same direction which might be adduced, that unless it acts very wisely the profession may do more harm than good by its advocacy of any bill. Then again, perfect liberty is far better than a poor bill, or one that will not execute itself without any aid from the medical profession. Several years since New York passed a bill that none should practice medicine except those who possessed a diploma or a license from some medical society. Medical societies were legalized to issue licenses to applicants fulfilling certain conditions. What was the result? Abundant medical societies were formed and a license to practice granted to all who applied. New York became the paradise of quacks, because they were able to obtain the authority of the State for the pursuit of their nefarious calling. Becoming dissatisfied with this, last winter another bill was passed revoking the former and throwing all power to license practitioners into the hands of the medical colleges, without distinction of sect or creed. It remains to be seen whether this will work better than the former.

The difficulties to be overcome or avoided are: (1) The dense ignorance of the governing power—the people—of all things pertaining to the medical profession. (2) The control of the Legislature by political parties, who use their power largely to promote their individual interests. (3) The chronic disintegration of the medical profession, by which it is unable to combine its forces in the attainment of a particular object.

We hope all these and other obstacles may be overcome in the present effort, which will surely be made. Of this again.

Memoranda.

Hebra, the renowned dermatologist, died, aged 64, in Vienna, on August 5th.

Prof. Buhl is dead. He will be best remembered by the profession for his researches upon the pathological anatomy of tubercle.

The American Neurological Society offers \$500 for the best essay upon the "Functions of the Optic Thalamus." The committee to receive and decide upon the merits of the essays are Drs. Miles, Squires, of New York; Jewell, of Chicago. The essays are to be

sent in before the meeting of the Society in 1882.

The *International Surgical Record* is the name of a new journal published in New York. It is double column, 36 pages, weekly, edited by Achilles Rose, M. D., and managed by E. J. Scheurtz. The number before us contains articles on "The Ancient and Modern Treatment of Wounds," "Esmarch on Bloodless Operations," "Neuroplasty," with several other short abstracts from German journals, an editorial congratulating itself for the big success of its first number. The review of one book on resection of wounds after gun-shot injury, and a Trade Department, in which Colwer's artificial leg and other surgical appliances are well advertised.

D. Appleton & Co. announce the early issue of a work on Practice of Medicine, by Dr. Roberts Bartholow; on the Bile, Jaundice and Bilious Diseases, by Dr. J. Wickham Legg; on the Science and Art of Midwifery, by Dr. W. T. Lusk; on Gynæcological Operations, by Dr. James B. Hunter; on Syphilis and Marriage, by Alfred Fournier, translated by Dr. A. P. Morrow; A Treatise on Insanity, by Dr. W. A. Hammond; A New Edition on Diseases of the Nervous System, by Dr. Wm. A. Hammond, and a new edition of Van Buren on the Rectum.

From the Cincinnati *Medical News* it appears that medical students are dissatisfied with the sort of clinical teaching given at the Cincinnati Hospital. The sooner students insist on having real clinical teaching, the sooner they will have it. There are medical schools that not only permit, but require of their senior students daily clinical work upon patients in hospital wards or dispensaries. If medical students want such teaching they have only to patronize the schools which give it.

The seventh session of the International Medical Congress will meet in London, England, from August 3d to August 9th inclusive. The work of the Congress will be carried on in fifteen sections. The meetings will be held in the halls of the University of London and in Burlington House. There will be a museum open during the meeting. It will be necessary for all who wish to make communications to Congress to intimate their intentions to the secretaries of the several sections and furnish an abstract of their

papers before April 30th, when the committee will issue a programme of the meeting. All communications should be addressed to William MacCormac, Esq., Hon. Secretary General, 13 Harley street, London, W.

Dr. Wm. H. Byford, of Chicago, was elected President of the American Gynæcological Society, at its late meeting in Cincinnati. Dr. James R. Chadwick still remains Secretary. The meeting is called a great success.

Dr. Fothergill, in a letter to the *Phil. Med. Times*, speaking of the position of the Guy's Hospital staff in its controversy with the nurses, says that it is peculiarly trying for the following reasons: "It is just this unfortunate fact that medicine offers a peculiarly good field for the polished man devoid of principle, who affects an almost impossible height of virtue and leads a life of actual depravity that paralyzes action. The profession knows well what untrustworthy elements there are in it and the large proportion of men in it who are virtuous from the absence of temptation, but who could not be trusted in the presence of temptation, and they, as well as other people, know it. In saying this I do not desire to disparage the profession as a body; the bulk of the profession are honorable men, as everyone knows. It is the men who vulgarly are called sneaks; the men who cannot be relied upon in an emergency, or rather that may be relied upon safely enough to break down like a bad gun barrel under the government test, that are the plague of the profession."

A patient, said to be suffering from consumption, in Guy's Hospital, London, soiled her bed. The nurse, to punish her, gives a cold bath. Patient dies. Dr. Pavy, under whose professional care the patient was, thinks the immediate cause of death was the bath given by the nurse on her own responsibility. On the strength of this the nurse was sent to jail. At the inquest Sir Wm. Gull, though he knew nothing of the case, except by the books or reports of others, testified in opposition to Dr. Pavy, that the woman died from natural causes of tubercular meningitis. So great is the feeling in the profession against his course that he was greeted at Cambridge with a perfect storm of hisses, etc., when he came forward to receive the degree of LL. D. It seems a pity that he could not be more severely dealt with.

A writer in the *Canada Lancet*, Sept., 1880, speaks of the condition of the profession in Canada as follows: "In fact competition is becoming so great in the country that medical fees are now in many cases below the level of common cab fare, and the social status of the profession on a level with the lightning rod peddler and general drummer. It is no uncommon thing to find two or three doctors in a little village of two hundred inhabitants, each one at dagger's point with the other, and plying all the cunning arts to injure the reputation of his hated rivals and ingratiate himself with an ignorant and gullible public. Is it not a common thing to hear medical men delivering the most absurd clinical bosh to their patients, describing minutely the nature and treatment of their diseases, the kind of medicine they are using, the number of patients they have and who they are, boasting of their skill in treating this, that and the other disease, the number of nights they have been without sleep, and the number of horses they have run down, etc., etc., ad nauseam?" This gentleman scarcely thinks that the medical profession of Canada is freed from quacks, sharp competition, under bidding, vile slander, etc.

The *Med. Press and Circular* says that since the failure of its great bank the city of Glasgow has not been so intoxicated as she now is with a "lady doctor." Concerning her antecedents 'tis not well to speak; she is not likely to revisit the scenes of her former medical and surgical achievements. She wears a coronet glistening with stones and metal that looks like gold, and a velvet bodice with spangles encircles her bust. She is said to be of Italian origin and the daughter of a celebrated Roman physician, and to hold several diplomas—so the people believe. Her carriage blazes with mirrors, gilding and colored glass, and is so constructed as to afford room on its roof to about half a dozen musicians, likewise grotesquely dressed. Her horses are beautiful, and Madame handles them like a practiced whip. She harangues the crowd through her interpreter, for she affects to speak no English. The lame, the blind, the deaf, the scrofulous and all forms of suffering are presented to her for cure. She draws teeth dexterously with the old-fashioned "pry," and the noise arising from broken jaws and stumps is deftly drowned

by the musicians. She vends to a gaping and credulous crowd two specifics, from the sale of which she must take about sixteen hundred dollars per day of the earnings of the credulous working classes. These medicines are supposed to be compounded of herbs which grow in the interior of India and China, and are termed respectively the "China Caustic" and "India Balm." The former is composed of wax, oil, vaseline and turpentine. The latter consists of glycerine and spirits of wine, scented with oil of peppermint and cassia. * * * Thus it appears that the nearer the quack the greater the rewards, and that human nature in the nineteenth century is as receptive of the miraculous as it was in the first." All this in the antique, learned and select Great Britain.

Dr. Shorthouse (*British Med. Jour.*) tells us that a man drunk from wine or malt liquor staggers from side to side, one drunk from Irish whiskey falls on his face, one drunk from cider falls on his back.

Prof. Fournier says that baldness confers upon the physiognomy an expression of wisdom, experience and venerability. It is the severe beauty represented by the classic head of *Æschylus*.

Mr. Frank Benton, of Michigan Agricultural College, has since last March resided at the Isle of Cyprus, in the Mediterranean Sea. He has been endeavoring to aid in the introduction upon that island of a rational system of bee cultivation. After about a year he will transport his hives to some American island far enough distant from the coast to prevent the access of domestic bees. The honey made by these bees is celebrated for its excellence.

A correspondent of the *Medical and Surg. Reporter* from Saratoga, N. Y., tells the following: "A gentleman at one of the hotels had been *unfortunate* enough to fall into the hands of a resident practitioner, and was being waited upon by one of the hall boys of the house. 'Who is your physician, sah?' queries the boy. 'Dr. —, one of the resident physicians,' replied the gentleman. 'Is he one of de *lower order* of physicians in de village? I knows a good physician, sah, stopping at the Grand Union, from New York, sah.' 'Yes,' replies the gentleman; 'who is he?' 'Dr. —,' naming a New Yorker in regular attendance upon our sum-

mer season in pursuit of professional business. The gentleman expressed his satisfaction with his present attendant, and the representative of the physician of a *higher order* retired."

Dr. J. Nevins Hyde is President of the American Dermatological Association for the coming year. Its late meeting at Newport, R. I., was such a success that the same place was selected for 1881.

Why does the regular profession refuse to associate with homœopaths? The *Medical Press and Circular* replies thus: "Because it believes that the tenets of homœopathy are not doctrines which may be honestly held by reasonable, thinking, educated gentlemen; but are, on the contrary, theories put forward to attract the uninitiated and impressible section of the public."

Funds have been appropriated by Congress only sufficient to issue the first two volumes of the index catalogue of the great national medical library. Every physician should use what influence he can with the representative of his district to the end that a sufficient appropriation may be made at the next session of Congress to continue the publication of the work as rapidly as is possible.

The New York *Medical Record* gravely cautions its readers to beware of annual college announcements of "very attractive appearance," of "alluring rhetoric," and of "beautiful typography." It apparently thinks its readers deficient in that general intelligence requisite to separate wheat from chaff, when found in a college announcement. It is a pity the profession is so green as to be over impressed by the "glitter" of medical college advertisements. The implication is that the advertised "long courses," "the frequent examinations," the "preliminary examinations" are simply advertising dodges of the colleges to blind the profession, by saying one thing while they are doing entirely the reverse, or by claiming to do much while they really do little. Soberly, is this a fact? If so, of what colleges is it true? What are the specifications by which the implication can be sustained? We know that it is not true of all colleges. If true of any the profession should be notified as to name, day and date.

In the event of a medical law being established in Michigan, its standard should ex-

clude the recognition of all diplomas from colleges whose standard is inferior to that of the several medical colleges in Michigan, viz: those which do not require a definite, respectable preliminary examination and a three years' graded college course. All applicants for the privilege of practicing medicine in Michigan, and not holding diplomas from schools having the above absolute requirements, should be examined by the Board. Such a law, well executed, would be an honor to the State, and a good to all concerned.

The Chicago *Medical Review* says that, "The medical schools of New York, Boston and Philadelphia which stand aloof from the association of colleges, either by withdrawal from membership or in their failure to place themselves on record as being in harmony with its spirit of advance, occupy a ridiculous position when they impliedly say that the attempt is premature. The difference between these institutions and the western and southern members of the College Association is that the latter propose to require of their candidates for graduation, not merely the "evidence," but three years of genuine study; while the former continue to require two short sessions of lectures, and to dispose of the remainder of the three years by simply requiring "evidence" of study. It thinks that, in the long run, low grade schools in the East will scarcely make headway in face of the honest efforts for improvement now made in the West.

The Consul General of the Rhône Department, France, has passed the following resolution: (*Edinburg Med. Jour*). Considering that celibacy is *contra naturam*, and that Providence has prescribed to all existing human beings the ordinance that they shall be born, procreate their species and die; considering that it is the bachelors who offend all the states of Europe with corrupt views and immoral tendencies; It is hereby decreed that the support of forsaken children shall be defrayed by the deduction of one-fourth from the salary or pension of every official or pensioner who is unmarried and resident in the Department of the Rhône, from the humblest to the most exalted employé who belongs or has belonged to the army, magistrature or any other branch of public administration." A tax on bachelors, so much per head!!

Editor's Book Table.

The Books Noticed in these Pages are for Sale by E. B. SMITH & CO., Detroit, Mich.

Bastian on the Brain as an Organ of Mind.*

The author opens his work by detailing the uses and origin of the nervous system, the structure of its microscopic elements—viz., nerve fibers, cells, etc.—and the nature and use of sense organs. Then he describes in order the peculiar nervous system of the mollusks, of the vermes, of the arthropods, of the invertebrates, of the amphibia, of fishes, of reptiles and of birds. Here he enters upon a consideration of mind, its scope, its reflex action and unconscious cognition, sensation, ideation, perception, consciousness in lower animals, the nature and origin of instinct, nascent reason, emotion, imagination, and volition. He then describes the brain of quadrupeds, of quadrumana, following with an account of the mental capacities and powers of higher brutes. In the next three chapters he details the anatomical features of the human brain, beginning with the intra-uterine state. This is followed by an account of the progress made in passing from brute to human intelligence. Then an account is given of the internal structure of the human brain and the functional relations of its principal parts. A statement is now made of the old and new cerebral localization. The remaining chapters consider will and voluntary movements, cerebral substrata, speaking, reading and writing as mental and physiological processes, the cerebral relations of speech and thought, and a statement of the further problems awaiting investigation. Thus it will be seen that the author has endeavored to connect with the action of some part of the nervous system all activities usually classed under the head of mind. Thus he includes under the term mind all those well known results of nerve action compressed under the general catagories: (1) Feeling, sensation or emotion; (2) intelligence, instinct or thought; (3) attention, volition or will; (4) the multitudinous results of mere unconscious nerve action which constitutes so many integral parts of our mental life.

It will be seen that this signification of

*THE BRAIN AS AN ORGAN OF MIND. By H. Charlton Bastian, M. A., M. D., F. R. S. With one hundred and eighty-four illustrations. Cloth; pages 706. 1880. New York: D. Appleton & Co.

mind includes far more than it is ordinarily made to cover. Respecting reflex action and unconscious cognition, he gives a large number of facts to show that "as by the frequent repetition of like stimuli the structural connections of nerve currents are developed and rendered definite, so certain appropriate actions will follow certain impressions with unfailing regularity and precision." There goes on as it were an organization of intelligence, primarily of the organic or unconscious kind, which is the hidden cause of the purposive character displayed by so many movements. When speaking of the "brain as the organ of mind," he uses the term organ merely in the sense that it is a part whose molecular changes and activities constitute the essential correlatives of those phases of consciousness known as sensations, emotions, thoughts and volitions as well as a considerable part of the sum total of those other related nerve actions which are unattended by consciousness and whose results form so large a proportion of the phenomena comprehended under the general abstract word, mind.

The data required to be combined in order to produce a science of mind are three fold: (1) Objective physiology in man and animals. (2) Subjective physiology in states of consciousness. (3) Neurology, including a study of the structure and foundations of all nervous systems, both in health and disease, by experimentation, use of drugs, etc. The neglect of either of these elements equally vitiates the results. In passing, we may say that the author fairly endeavors to utilize all of these in the work before us. As they cover a vast field and require different habits of thought and modes of study in order to best apprehend them in detail or in combination, it will be no wonder if many fail ere one is found who shall construct a true science of mind. Confessedly the work before us is but a fragmentary contribution to the establishment of such a science.

The illustrations are taken from the best works on anatomy and serve a very important purpose in explaining the anatomical portions of the work. The Appletons have done their work as publishers with their usual good taste. All professional men will be interested in this work—physicians, ministers, lawyers and teachers, original workers in anatomy, physiology, in zoology, in

the so-called mental and moral philosophy and in neurology. Even practical physicians will find much to interest and profit them in an increased broadness of view given to many of the details of morbid phenomena.

Index Catalogue of the U. S. Army Medical Library.*

For several years efforts have been made to secure the publication of this catalogue. In 1876 the Surgeon-General exhibited a specimen of the form in which it was proposed to publish this work. It was sent to those interested in the same with the request for a candid and thorough criticism. The present catalogue is the result of this criticism, etc., the suggestions brought out by it. The subjects and authors are both given, together, under one alphabetical arrangement. In the selection and arrangement of subject headings, the convenience of the student has ever been remembered. Those titles have been selected for subjects which most educated English speaking physicians would look for in alphabetical arrangement. Cross references are given in cases of doubt between two or more subject headings. An English word is preferred to a Greek or Latin one for the same subject, and references given to the others. Usually substantives rather than adjectives are selected for subject headings. Local diseases or injuries are, as a rule, placed under the name of the organ or locality affected. Cases in which one disease is complicated with or immediately followed by another are placed under the name of the first disease, with the subheading, "Complications or Sequelæ." When the main subject of an article is the action of a given remedy in general, or its action in several diseases, it is indexed under the name of the remedy; but if it relates to its action in but one disease, it is indexed under the name of the disease. As a rule, the references are from general to more special heads, but not the reverse. Under the name of an organ are found the books and papers relating to the anatomy and physiology of that organ. In indexing journals and transactions, as a rule, only original articles are taken.

*INDEX CATALOGUE of the Library of the Surgeon-General's office, United States Army. Authors and subjects, vol. 1, A. Berlinski. With a list of abbreviations of titles of periodicals indexed. Cloth, pages 1,000. 1880. Washington, D. C.

Preceding the index proper is an index of periodicals indexed at the present time. The volume before us includes 9,090 author titles, representing 8,031 volumes and 6,398 pamphlets. It also includes 9,000 subject titles of separate books and pamphlets, and 34,604 titles of articles in periodicals. We wish the entire catalogue were complete, as we believe that it would greatly promote broad and accurate scholarship. It is a monument of the genius of Dr. J. S. Billings, for work himself and for inducing such work in others. It is issued in the same substantially elegant manner as former publications of the Surgeon-General's office.

Putzel on Functional Nervous Diseases.*

The subjects treated of in this volume are chosen: Epilepsy, Neuralgia and Peripheral Paralysis. In these diseases the author thinks we have not as yet ascertained by the naked eye or by the microscope what, if any, are the pathological changes which produce their symptoms. He grants that there must be a molecular change, as yet unknown. As the above mentioned functional diseases are relatively frequent, he thinks their clinical study of vast importance to the practical physician. Especial attention is paid to the sections on clinical history and diagnosis.

In discussing the etiology of chorea he makes the following remark: "Onanism is also looked upon as an active predisposing cause of chorea, as it is of so many other nervous affections, I have, however, only been able to obtain evidence in a few cases of the sufficiency of this cause as an agent in the production of the disease. In fact I am of the opinion that the baneful effects of the 'secret vice' have been greatly over-estimated by the profession as well as by the laity. The habit is undoubtedly practiced to an enormous extent among children of both sexes, and if its potency as a disease-producing factor were as great as is claimed to be by so many physicians, chorea, as well as other functional nervous diseases would be much more common than they really are. While I, therefore, believe that excessive onanism, by lowering the healthful tone of

*A TREATISE on common forms of Functional Nervous Diseases. By L. Putzel, M. D. Cloth, pages 256. 1880. Wm. Wood & Co., New York. Wood's Library of standard medical authors. Sold by subscription only. Price, \$15.00 for twelve volumes.

the nervous system, may prepare the way for the more ready development of nervous affections, I doubt whether it is often the principal agent in their production." He believes that the evidence is such as to show that the disease takes its origin in the cerebrum. But the theories in regard to the nature of the lesion are extremely varied. He groups the symptomatology of chorea as consisting of mental disturbances (irritability, loss of memory, perhaps mania, etc.) and motor disturbances (muscular twitchings, certain amount of paresis). These symptoms, he thinks, could be readily explained by a lesion of the cerebral cortex in the neighborhood of Hitzig's motor centres and the adjacent parts of the frontal convolutions. Like all the functional neuroses, chorea is an evidence of the low tone of the nervous system, and we may accordingly regard the cortical disturbance either as the result of anæmia in the parts affected, or of malnutrition or exhaustion of the ganglionic cells in the convolutions." The author regards the medicinal treatment of chorea as extremely unsatisfactory. His plan is to put the patients on from three to five drop doses of Fowler's solution three times a day after meals, in a little water, and increase this amount by one drop at a dose until some of the tonic effects are manifest. The drug is then discontinued for a few days until these symptoms have subsided (an alkaline drink such as vichy will accelerate their disappearance), and it is then administered in doses slightly smaller than those which produced the toxic effects. While this does not cut short the disease, the author finds that the movements become very much milder within ten days or two weeks. The article is one of more than usual interest, and may be profitably read by all physicians. The same may be said of the three other articles. It is a good book, fully sustaining the reputation of this library.

Gross on Tumors of the Mammary Gland.*

This work is an endeavor to apply to the special tumors of the mammary gland, the knowledge derived from modern histological research. To harmonize the structural with clinical observations he has analyzed sixty-

*A PRACTICAL Treatise on Tumors of the Mammary Gland, embracing their histology, pathology, diagnosis and treatment. By Samuel W. Gross, A. M., M. D. With twenty-nine engravings. Cloth, pages 246. 1880. New York, D. Appleton & Co.

five cases of cysts and nine hundred and two neoplasms, the nature of which was confirmed by the microscope, more than one seventh being original. He classifies mammary tumors thus (A) (1) Neoplasms derived from the periglandular connective, and constituted by connective tissue or its equivalents, of which two divisions may be made, viz.. (a) Those which represent perfected or mature connective tissues and may, therefore, be called typical. These comprise fibroma or fibrous tumors, myxoma or mucous tumors, lipoma or fatty tumors, and chondroma or cartilaginous tumors. (b) The second division includes those neoplasms which represent embryonic, unripe or transitional connective tissue and may be termed atypical. It is limited to the genus sarcoma. (2) Neoplasms which proceed from the secreting elements and are composed of epithelium. Of these, adenoma or glandular tumor is a typical epithelial growth, while carcinoma is an atypical epithelial formation. (3) Neoplasms which are derived from and are constituted by higher structures. These are first angioma or a tumor composed of blood vessels, and secondly, neuroma or a growth made up of nerves. (B) Cysts, which include formations due to obstruction of the ducts and the accumulation of the secretion of the lacteal glands, and cysts of new formation inclosing echinococci.

He regards the anatomical arrangement of the stromal and epithelial constituents, as indicated by the age, does exercise a most marked influence upon the kind of neoplasm to which the mamma is most liable. Thus the only tumors that develop before the sixteenth year are fibromata and sarcomata, and the chances are six to one in favor of the former.

Between the sixteenth and fortieth years they are most common in the following order: fibroma, sarcoma, adenoma, carcinoma, and myxoma. After the age of forty the order is reversed, being myxoma, carcinoma, adenoma, sarcoma, and fibroma. The chapters on diagnosis are especially perspicuous. He strongly endorses Mr. Moore's view that carcinomatous tumors are amenable to treatment, if they are removed as he directs, viz.; the entire mamma, all involved adjacent textures, as skin, fat, pectoral muscle, and lymphatic glands. In conducting the operation

the tumor should neither be cut into nor seen. The results of this treatment have been more favorable than its projector supposed. Altogether the work is one of more than ordinary interest to the surgeon, gynecologist and physician.

The recasting of our former knowledge with the implements of modern research has cast a fresh light upon this intricate subject, and given more hopeful views as regards treatment and prognosis.

Hufeland on the Art of Prolonging Life.*

This little book was written during the latter part of the eighteenth century. It was translated into English in 1794. Being issued in a very expensive manner, its circulation was slight. It has ever been regarded as a classic work, and in its present form will undoubtedly reach a large circle of readers. The modern reader will see how little real progress has been made in our knowledge of the art of prolonging life, during the present century. In treating of longevity, he says: "Mortality is greater among practical physicians than, perhaps, among men of any other profession. They have the least opportunity of observing those prudential rules and precautions for preserving health, which they lay down to others; and there are few employments in which the powers, both of the body and mind are exposed to so much consumption as in this. Head and feet must always be exercised in common. But the greatest mortality prevails during the first ten years of their practice. A physician who has fortunately withstood that period attains to a certain strength of constitution, a kind of insensibility to fatigue and the causes of disease; by custom, noxious effluvia and the poison of infectious disorders become less prejudicial, and he acquires more indifference for the heart-melting scenes of woe and the numberless miseries, the consequences of vice and moral evil which his business condemns him to be a daily spectator of. And thus, the physician who has luckily passed his time of probation may become an old man."

Respecting the relation of married life to length of days, he says: "All those people who have become very old were married more than once, and generally at a very late

period of life. There is not one instance of a bachelor having attained to a great age. The same is true of the female sex. Hence, it would appear that a certain abundance in the power of generation is favorable to longevity. It forms an addition to the vital power, and this power of pro-creation seems to be in the most intimate proportion to that of regenerating and restoring one's self: but a certain regularity and moderation are requisite in the employment of it, and marriage is the only means by which these can be preserved."

"A good stomach may be known in two ways; not merely by an excellent appetite, for that may be the consequence of any stimulus; but, in particular, by an easy and perfect digestion. Whoever feels that he has a stomach cannot have a good one. One must not be sensible that one has eaten; must not be drowsy, dejected or uneasy after meals; must have no phlegm in the throat in the morning, and the evacuations must be regular and well concocted. Experience tells us that those who attained to a very great age had a good appetite which they retained to the last." Portrait of a man destined to long life. "He has a proper and well proportioned stature, without, however, being too tall. He is rather of the middle size, and somewhat thick set. His complexion is not too florid; at any rate too much ruddiness in youth is seldom a sign of longevity. His hair approaches rather to the fair than the black; his skin is stony, but not rough. His head is not too big; he has large veins at the extremities, and his shoulders are rather round than flat. His neck is not too long; his abdomen does not project, and his hands are large, but not too deeply cleft. His foot is rather long, and his legs are firm and sound. He has, also, a broad, arched chest, a strong voice and the faculty of retaining his breath for a long time without difficulty. In general, there is a complete harmony in all his parts. His senses are good, but not too delicate; his pulse is slow and regular. His stomach is excellent, his appetite good and his digestion easy. The joys of the table are to him of importance; they tune his mind to serenity and his soul partakes in the pleasure which they communicate. He does not eat merely for the sake of eating, but each meal is an hour of daily festivity; a kind of delight, attended with this advantage

*THE ART OF PROLONGING LIFE. By Christopher William Hufeland. Edited by Erasmus Wilson. From the last London edition. Cloth; pages 298. 1880. Philadelphia: Lindsay & Blakiston. Price, \$1.00.

in regard to others, that it does not make him poorer, but richer. He eats slowly and has not too much thirst. Too great a thirst is always a sign of rapid self-consumption. In general, he is serene, loquacious, active, susceptible of joy, love and hope; but insensible to the impressions of hatred, anger and avarice. His passions never become too violent or destructive. If he ever gives way to anger he experiences rather a useful glow of warmth, an artificial and gentle fever, without an overflowing of bile. He is fond, also, of employment, particularly calm meditation and agreeable speculations; is an optimist; a friend to nature and domestic felicity; has no thirst after honors or riches, and banishes all thoughts of to-morrow." It is questionable whether a better portrait of the long-lived could be drawn to day. The book is well issued, and is worthy of a place in every library, professional or otherwise. The elixir of life has long eluded the pursuit of the enthusiast, but directions for making it are here presented to all. Whosoever shall obey these directions shall live long and live happily.

Legg on Bile and Bilious Diseases.*

During and anterior to the dark ages the liver was regarded as of the greatest importance in its relation to the causation of disease. As scientific ideas began to exert an influence upon the medical profession, it was found that these ideas were incompatible with former notions respecting the liver. Hence these notions were to a great degree discarded by all scientific physicians; meantime the researches of Bernard and others revolutionized the scientific conceptions concerning this organ. These have penetrated every part of medicine and surgery, until to-day when we find the most scientific men regard the liver of greater importance than ever before. The work before us relates only to one function of the liver, viz., the production of bile and the diseases induced by its disorders. The first two hundred and twenty-five pages relate solely to the physiology and physiological chemistry of bile. The next one hundred and fifty pages treats of jaundice. The next one hundred and fifty pages deals with acute yellow atrophy of the liver. Besides we find "yellow fever," "phosphorus

poisoning," "jaundice after poisoning by arsenic, antimony, etc," "icterus febrilis," "icterus syphiliticus," "icteris a venenis," "icterus gravidum," "icterus neotatorum," "icterus infantum," "icterus menstruantis," "bilious diseases, with a bibliography of icterus epidemicus, acute yellow atrophy and congenital defect of the gall stones." The work is essentially a compilation. In this respect it seems to be well done and worthy of confidence. Respecting the physiology of bile he says: (1) It is still uncertain whether the liver be a mere filter or secretes the bile itself. (2) It is believed that the bile is secreted by the liver, passes into the intestines, is absorbed by the intestines, passes into the blood and by the blood returned to the liver to be again excreted. (3) It is thought that the bile pigments are direct derivatives of the hæmoglobin of the blood corpuscles, though the evidence in favor of this has of late become weaker. (4) The bile acids must be derived from some introgenous bodies—whether from the breaking down of the tissues or the splitting up of the peptones derived from food is not known. (5) It is doubtful whether the cholestérine and lecithin be formed from the liver or merely excreted from the blood. (6) The amount of bile secreted during 24 hours by either brutes or man varies considerably. In the cases of biliary fistulæ in man it varied from seven to twenty-two ounces. (7) It would seem likely that the taking of food into the stomach is followed in an hour or two hours by an increased secretion of bile. No definite relation has been established between the kind and amount of food and the amount of bile. No nervous influence has as yet been found to directly affect the secretion of bile. On lowering or raising the blood pressure in the liver, the amount of bile which escapes from a biliary fistula is decreased. Purging causes a decrease in the amount of bile secreted. Irritation of the papillæ in the duodenum by an acid is followed by a rush of bile in the duodenum. The experiments of M. Chonyakon and V. Von Krusenstern are quoted to show that cholestérine may be injected into the veins of animals in large quantities without effecting any unfavorable result. This seems to show cholestérine is a harmless body, and that the theory of cholestearæmia must fall. As to the function of bile the author thinks that

*ON THE BILE, Jaundice and Bilious Diseases by J. Wickham Legg, F.R.C.P. Cloth; pages 719. 1880. New York: D. Appleton & Co.

we know no more about it than did the Greeks twenty-two hundred years ago. The clinical part of the book is well prepared, and fairly represents our present knowledge of the subject. The physiology and the diseases of the liver are confessedly obscure, and this work, by combining a fair statement of that portion relating to the bile, has done good service to the student and practitioner. The work is finely printed, in large type, leaded so that its study is a rest to the eye.

Rumbold on the Hygiene of Catarrh.*

The subjects treated by this little work are grouped under the following heads: "The importance of preventing colds," "Protection of the head and neck," "Clothing for the body, limbs, hands and feet," "Colds produced by draughts, night air and petty acts of commission and omission," "Temperature and ventilation," "Diet and stimulants," "Exercise," "Disposition of the mind." Among the sanative measures proposed are descriptions of methods for cleaning the nasal and naso-pharyngeal passages by patients, the cleansing of the ears, the care of teeth, the proper use of the bath and the value of the application of oil to the surface. Lastly, he treats at length of the mental and physical effects of tobacco upon the causation of catarrh. Respecting the book as a whole, our first remark is that it is well written; second, the author evidently has done his own thinking and made his own observations; third, it gives true and wise advice respecting the prophylaxis of a disease that is well nigh universal, a disease that medicines alone cannot cure. While treating of the protection of the head, the author strongly advocates the use of night-caps by all those inclined to catarrhal troubles, and by all children during the fall, winter and spring months until the tenth year. Respecting clothing, he insists that women do not clothe themselves warmly enough. "If the strongest men were to clothe themselves in the same kind, form and amount of garments that most women do, they would soon be laid up with some kind of sickness originating from the exposure. Although every weak, illyclad female will admit this, yet it is almost as diffi-

cult to persuade her to put on a sufficient amount of the right kind of clothing as it is to persuade an old tobacco user to give up the weed." As to frequent changes of clothing, he advises, "those patients that are thin in flesh and on the surface of whose body there is little or no oily material, should not change the stocking-knit suit that is next to the body until it has become soiled—from one to four weeks." The doctor himself has been a user of tobacco, yet he says that tobacco perpetrates most successfully both a deception and a fraud on every one of its victims, by causing them to believe that its effects are exhilarating, when, in fact, this so-called exhilaration is in reality but the sensation of relief from secondary effects and a hallucination which is slowly, imperceptibly brought on by the narcotic and perverting effects of tobacco on the sympathetic nerves. He adduces facts to show "that what insufficient and inefficient clothing does to females in exposing them to the effects of sudden and great changes of temperature, tobacco does for its victims in preparing their membrane to take cold, both the tobacco and the deficient clothing tending to induce catarrhal inflammation. For this reason it is as useless to treat a patient who continues to use tobacco as it is to treat a female who refuses to protect herself with a sufficient amount of the proper kind of proper clothing. We trust this book may have a wide circulation. It will do physicians no harm to read it.

Wisconsin's State Health Board's Report for 1879.*

Besides the general account of the Board's work by the Secretary, we find seven papers upon the following topics: "Homes for the People," "Our Public Schools," "Our School Houses," "Ground Air," "The Adulteration of Foods," "Inspection of Public Buildings," "Report on Typhoid Fever." The two papers connected directly with public schools are simply admirable, in matter, in spirit and manner of presentation. If the people of common sense in Wisconsin are not stimulated to work some reforms in their public schools we shall be greatly disappointed. Dr. J. T. Reeve shows that the child should not be sent to school until at least eight

*HYGIENIC AND SANATIVE MEASURES for Chronic Catarrhal Inflammation of the Nose, Throat and Ears. By Thos. F. Rumbold, M. D. Cloth; pages 174. 1880. St. Louis: Geo. C. Rumbold & Co.

*FOURTH Annual Report of the State Board of Health of the State of Wisconsin, 1879. Paper, pages 115. Madison, Wis.

years old, and that then from two to three years are all that he should spend in the school-room. The facts, opinions and arguments, by which this proposition is maintained, are admirable. Then it is shown that too many studies are required of each scholar, and too little time is given to any particular one. Hence the scholar fails to get the facts or the mental discipline which should attend any proper method of study. Prizes and honors receive their proper condemnation. Further it appears that there, as elsewhere, education fails in that it is not practical, does not fit the student for the real duties of life. The school should enable the scholar to bear home lessons in education, in health and in virtue. Prof. W. Chittenden, from six hundred reports representing school houses of every grade, found that in twenty-two per cent. they were located in a situation utterly unfit for any building intended for the occupancy. One site it described thus: "A frog pond lies on the west; a hog yard on the east; on the south side the railroad runs close to the fence, and a cemetery is just across the road on the north." As to ventilation, only nineteen of the reports state that it is satisfactory. Several of the cheaper and simpler methods are given. The arrangement of light was found to be conspicuously faulty. One hundred and thirteen correspondents out of three hundred and twenty-eight affirm that the sight of the pupils does suffer from the faulty arrangement of the windows. School room furniture is unquestionably bad. As to privies, he finds that in more than seven per cent. of the reports there are no privies; in *twenty per cent. the boys and girls, promiscuously are compelled to make use of the same apartment*; in fifty-eight per cent. the privies are unscreened from weather or from observation. Other privies are located so near to the school house as to be terribly offensive. Large numbers are kept in a most filthy condition. Then the water supply of the schools is defective in many instances; foul or absolutely poisonous in others. The schools need better ventilation, better school buildings, better furniture, the scholars more outdoor exercise, the schools improved heating apparatus, the scholars greater attention to cleanliness of person, to gymnastic and calisthenic exercises, better lighted school rooms, more care as to food and diet, proper

attention to clothing, and shorter school sessions.

Dr. G. F. Witter shows that "ground air" has a definite and positive relation to the health of the people who inhabit the houses above it. Attention is directed to the little recognized fact that the air in the ground is subject to currents, eddies, storms, defilements, just as the air above the ground or the water in the ocean or in the earth. So it is that into the cellar may flow air currents laden with the rankest poisons, and if permitted to reach the chambers above they may bring disease or death. Hence the importance of drainage etc.

Prof. T. C. Chamberlin contributed to our knowledge of food adulterations. Altogether we congratulate the State Board of Health of Wisconsin for the excellent service they have done in the preparing of this report. The State should pay ten thousand dollars for it instead of a little more than three thousand.

Conklin upon the Relations of School Life to the Eye Sight.*

It appears that the Board of Education appointed a committee "to ascertain whether all the school rooms of Dayton, Ohio, were sufficiently lighted, and whether any conditions existed tending in any degree to impair the sight of pupils, and whether weakness of sight is to any extent prevalent among the pupils of the public schools." Dr. Conklin found the percentage of near sighted children in the district schools of Dayton to be 15.35 per cent.; in the intermediate, 17.65 per cent.; in the high school, 18.32 per cent. As to ventilation, he found no adequate provision for ventilation except in two instances. As to light, he assumes as correct the German standard of 350 square inches per capita. By the standard, which is certainly too low, he shows that but two out of the thirteen public school buildings of Dayton meet this requirement. In four buildings every room is defective in the amount of lighting surface. Less than one-third of all the school rooms reach the assumed standard. Again, estimating the necessary amount of light by the proportion of window surface to floor space, he finds that in only

*THE INFLUENCE OF School Life upon the Eye Sight, with special reference to the Public Schools of Dayton, by W. J. Conklin, M.D. Submitted to the Board, March 12, 1880, and published by its order. Paper, pages 32. Dayton, Ohio.

three districts do the study rooms conform to the accepted standard, viz., that the window surface should be one-sixth of the floor space when there is no obstruction to the entrance of light. As to the comparative value of windows on one or both sides of the room, he thinks this is determined by the width of the room and the construction of the windows. Sufficient light can only be obtained from windows arranged upon one side when the width of the room does not exceed the length of the lintels of the windows above the floor. If the width exceeds this measurement, bilateral windows become necessary for proper lighting. All windows should be square headed and extend from the tops of the desks as near the ceiling as possible. The ceiling should be white, and the walls tinted with some neutral light color. He found the fittings of the school rooms to be (1) too high desks; (2) too great a difference between the height of the seat and that of the desk; (3) too great a distance between the seat and desk; (4) too flat a top to the desks; (5) lack of suitability of the size of the desk and seat to that of the occupant. These the committee suggest that the Board proceed to correct in as far as possible, and further that the teachers be trained in a practical knowledge of hygiene, so that they may instruct their pupils how to live at home so as to avoid the conditions which there exist injurious to the proper development of the eye. We would that just such gospel as this essay contains could be burned into the real consciousness of every school board, of every school superintendent and of every teacher and of every parent. It is quite probable that the schools are a fair representation of public schools in all the larger towns. What is true there will probably be not far from the truth elsewhere, under the same general circumstances. It is one hopeful outlook of the future that there is such an increasing interest in the growth and development of children. Nor has this interest begun too soon to arrest the tendency to physical deterioration among the middle classes. Still less likely is it to be rendered too earnest to meet the demand of the age.

Transactions of Missouri State Medical Society.*

In his annual address Dr. E. W. Schauffler insists that members of the "medical profes-

*TRANSACTIONS OF THE MEDICAL ASSOCIATION of the State of Missouri. 1879. Cloth; pages 142. St. Louis, Mo.

sion should more highly respect the profession and more boldly vindicate its honor when assailed." He sees the need for his exhortation in facts like the following: (1) Twice he recently received letters from county medical societies in Missouri, telling him that the question of admitting homœopaths and eclectics to membership was to be considered. (2) The Richmond and Louisville *Medical Journal* advised professional recognition of and counseling with homœopaths as the best means of combatting homœopathy. (3) The New York *Medical Record* advised full fraternization with the "liberal homœopaths," those who declare that hereafter they will not be bound by any exclusive dogma.

He thinks that one who knows the narrow and false hypothesis upon which these methods of practice are based must be convinced of the absurdity of counseling with those who profess to follow them. Evidently Dr. Schauffler is not in favor of promiscuous consultations. Dr. Edward reports some reflections upon the surgical treatment of wounds and inflammations. Dr. J. M. Richmond makes some suggestions respecting the surgical diseases of the pelvic organs. Dr. Chas. A. Todd calls attention to the importance of an early recognition of growths in the larynx. Dr. J. H. Hughes gives us a clinical inquiry into the significance of absent patellar tendon—reflex. He also gives a description of an improved æsthesiometer and its uses. Dr. F. J. Lutz describes two pathological specimens—one of an epithelial cancer, the other an amputated hip joint. Dr. Chas. E. Michel presents an excellent paper upon "Purulent Ophthalmias and their Treatment." The author condemns as injurious all astringent collyria in the treatment of simple conjunctivitis. He regards the conjunctiva as simply a modified skin, and by making due allowances for its location, its special function, greater sensitiveness and delicacy of structure, there should be a close similarity, if not identity, in the therapeutical principles which should guide us in the treatment of like pathological conditions in each. His plan of treating acute purulent conjunctivitis is as follows: (1) Keep the surface clean by the frequent washing with a very bland fluid—a weak decoction of althæa, with one per cent. of salt will do; parts to be cleansed without any

irritation every one or two hours. (2) After cleansing apply a bland ointment to the lids. (3) If the inflammation tends to become chronic he uses a collyrium of one grain each of alum and carbolic acid to the ounce of water. (4) The best of food, air and cleanliness must be obtained. (5) Internally, tinct. ferri chloridi. (6) Have the bowels kept loose. Dr. A. J. Steele presents a case of "pseudo-hypertrophy" of the muscles. Only one hundred cases of this disease have been reported. Dr. William Dickinson makes some excellent remarks upon the "indications for the use of mydriatics and myotics." Dr. W. H. Bryant discusses Bright's disease. In its matter this report stands in the front rank. As will be seen by the foregoing, the papers cover a wide range of very practical subjects. The paper, type and presswork are strictly first-class.

Trousseau's Therapeutics.*

This translation omits the following portions of the original work: (a) The pharmaceutical details. (b) Descriptions of the physiological action of drugs. (c) Articles on pepsin, raw meat and pepsin, magnetism, electricity, acu-puncture, massage, gymnastics, flagellation, hydro-therapeutics and caloric, with a number of drugs of minor importance. (d) The introduction of 110 pages containing a historical account of the progress of medicine from the earliest ages. The present volume contains four chapters treating of "Anti-phlogistic treatment," "Evacuants," "Musculo-motor Excitants or Excito-motors" and "Narcotics." The discussion of blood-letting is, of course, entering out of our present lines of practice: still it has relation to certain principles which are as true now as then. While this work will not serve well as a sole guide in matters of therapeutics it will be an excellent addition to others more modern.

Mississippi State Medical Society Transactions.†

We find evidence of considerable activity among the profession of that State. The President's address called attention to the

*TREATISE ON THERAPEUTICS. By A. Trousseau and H. Pidoux. Ninth edition. Translated by Dr. D. F. Lincoln. Vol. II. Cloth; pages 299. 1880. New York: Wm. Wood & Co. Seventh volume of Wood's Library of Standard Authors.

†TRANSACTIONS of the Mississippi State Medical Association, at the thirteenth annual session, 1880. Paper; pages 177.

ways by which the health of females was impaired, and the relation of the profession to the correction of these ways. The annual oration insisted that doctors should be better business men, unless they were content to starve. Papers on the recent advances in obstetrics and surgery are quite complete. A considerable number of clinical reports add much to the value of the volume. Dr. D. L. Phares recommended the *ascyrum crux-andreas* for whooping cough. Since 1863 he has used the drug with very satisfactory results, and more so than any other remedy he has been able to obtain. Its English name is Andrew's cross. The plant belongs to the order hypericaceæ, or St. John's-wort family.

Transactions of Louisiana State Medical Society, 1879.*

Dr. L. F. Solomon makes a report on leprosy in Louisiana. Twelve cases are reported as definitely known, six in New Orleans and six outside. All but one of the outside cases belong to the anæsthetic form of the disease, and all but one of the cases belong to the tubercular form. From evidence accumulated by himself, he thinks that the disease may be spread by heredity, by inoculation and by too free contact of healthy with diseased skin. Dr. E. S. Chaillé made an exhaustive report on the new provisions in the constitution of Louisiana, proposed in the interests of State medicine. These were endorsed by the Society, and a committee appointed to secure their adoption by Legislature and people. The entire paper will prove of interest to all interested in State medicine. Dr. Joseph Jones presents an exhaustive paper upon the comparative pathology of malarial and yellow fevers. This covers 110 closely printed pages. Dr. M. Schuppert reports a case of "Oblique fracture of the thigh bone without shortening the limb," and states that in eleven other cases he obtained an equally good result. Briefly, his method consists in making extension by an assistant, and counter extension by the perineum. By this means the limb is placed in proper position. Then it is surrounded by flannel, continued on the body as far as the umbilicus. The pelvis and abdomen have to be padded with cotton batting besides. The tuber ossis ischii of the fractured limb is

*PROCEEDINGS of the Louisiana State Medical Association, 1879, with Constitution and By-Laws. Paper; pages 206. New Orleans, La.

extra well padded, as here is the place of greatest counter extension. Against this pad he places an ordinary wooden splint, including and securing it by the gauze roller. On top of the flannel, at the seat of the fracture, a few narrow splints of tin reaching below the knee are placed and fastened with the same roller of gauze. The whole is now covered with three layers of plaster of Paris rollers. This first dressing is allowed to remain from two to three weeks. At the end of this period an anæsthetic is given the patient and the limb dressed again. Generally but three dressings are required.

Bulkley on "the use of Water in Skin Diseases," on "A New Method of removing Superfluous Hairs," and "On the Nomenclature, etc., of Skin Diseases."*

The new method of removing superfluous hairs is as follows: The tools are a pair of epilating forceps and a small three-sided straight glover's needle firmly inserted in a small triangle. The edges of the needle need to be very sharp. The forceps in one hand grasps the hair while the needle held in the other hand is engaged in the opening of the hair follicle. As the hair is extracted, the point of the needle is gradually pushed to the bottom of the follicle. The needle is now rotated a number of times and then withdrawn. If there be much irritation the surface is dressed with zinc ointment. The method has been shown by the doctor's experience to be both safe and reliable.

Transactions of Virginia State Medical Society, 1879.†

The President's address discusses topics of general interest in the social relations of physicians. Dr. Oscar Wily discusses the "reflex influence upon the physician of his work." Dr. E. T. Robinson makes a meagre report on advances in chemistry, pharmacy, materia medica and therapeutics. Dr. Geo. B. Jennings reports on progress in diseases of children. Dr. Randolph reports on advances in obstetrics; Dr. Wm. H. Bramblett, on advances in practice of medicine; Dr.

*"On the use of water in the treatment of Diseases of the Skin"; "On a New Method of removing Superfluous Hairs," and "On the Nomenclature and Classification of Skin Diseases." The first is a reprint from the *Chicago Med. Jour.*, and the last two reprints from the Archives of Dermatology.

†TRANSACTIONS of the Tenth Annual Session of the Medical Society of Virginia, 1879. Pages 149. Richmond, Va.

Jackson, on advances in hygiene and public health. Dr. Wilson presents the advantages of Paquelin's thermo-cautery. Our friend, Dr. J. M. Jones, gives a sketch of Dr. Jas. Craik. Dr. J. Marion Sims, a paper on the diagnosis of abscess of the liver by cerebral symptoms, with remarks on the treatment of hepatic abscess by aspiration. Clinical remarks on thirty-three consecutive cases of diphtheria are made by Dr. Fauntlezy. Dr. Wm. Selden gives an account of a case of bony union of intra-capsular fracture of the neck of the femur. These transactions have been well advertised by the Virginia medical journals, as it is asserted that a certain amount of crookedness is apparent in their publication. No doubt this will be entirely straightened ere the next meeting.

Medical Directory of Iowa.*

The compilation of this work is performed with great care and painstaking. As such it is worthy of the confidence and support of the profession of Iowa, and such others as desire to in any way come in correspondence with the individual members of that State.

Jeffries on Color-Blindness.†

Of 14,469 male students, 608 were color-blind, or 4.202 per cent. Of 13,458 female students, 9 were color-blind, or 0.066 per cent.

Register of Physicians and Midwives in Illinois.‡

Probably no State possesses so correct a register of all who are practicing medicine within its limits. Of itself, this is of great value, as it fairly indicates the sources from which the profession took its origin. To outsiders, who desire to place themselves in communication with members of the profession in Illinois, it will prove invaluable.

*THE MEDICAL and Surgical Directory of the State of Iowa for 1880 and 1881, contains the names, addresses and professional standing of physicians, accounts of the various medical societies, medical colleges, hospitals, medical laws, fee bills, etc., by Dr. Chas. H. Lothrop, Lyons, Iowa.

†REPORT on the Examination for Color-Blindness of 27,927 School Children. By Dr. B. Joy Jeffries. Pages 9. Boston, Mass. 1880.

‡OFFICIAL REGISTER of Physicians and Midwives to whom certificates have been issued by the Illinois State Board of Health, under the Act of May 29th, 1877; and of Physicians and Midwives who have registered in the County Clerk's office, under the Act of May 25th, 1877, and who claim to have practiced in Illinois ten years, prior to July 1st, 1877, but to whom no certificates have been issued. Paper, pages 286. 1880. Springfield, Ill.

Transactions of Alumni Association of Medical College of Ohio.*

This volume contains an excellent account of the lives of many of the graduates of this old college. As a contribution to the medical history of the West it is a most valuable publication. The history of the first twenty years of the existence of this college is remarkable for the fights, in and out of the college, among professors, students, townspeople, legislatures, conventions, etc. Some of these are very entertaining at this age and distance. The history shows that an unusual number of able men have, from time to time, labored in this field.

Dalles on What to do First in Accidents.†

This little work was designed for the laity. That they should have some conception of the proper method of action in cases of accident or of poisoning is extremely desirable. How shall they know unless they be taught? As their teacher, Dr. Dalles appears. We doubt not that it will reach a few people and do some good. Would that more could profit by its teachings.

Transactions of Tennessee State Medical Society.‡

Dr. Thos. Mences has an excellent paper upon the use of the forceps, in which he advocates their more frequent use. Dr. G. B. Thornton advocates the open treatment of amputations in that class of cases in which union by first intention is not likely to occur, thus preventing pyæmia and septicæmia. Dr. W. P. Hope reports a case of femoral hernia treated successfully by operation. Dr. T. J. Tyner tries to show that the use of the hypodermic syringe has been restricted too much. Dr. Van S. Linsley tells how hypermetropia let alone produces irreparable damage—but properly treated the normal use of the eyes is restored. Dr. Fordyce Grinnell advocates the substitution of iodine for quinine in treating intermictic fever. Dr. T. O. Summers calls attention to the use in surgical dressing of Kœhlers' adjustable

splint and spongiopiline. Dr. W. P. Jones tries to show that insanity is a disease of the brain. A case of general cirrhosis is reported by Dr. W. J. Miller. Modern views on traumatic cataract are presented by Dr. J. G. Sinclair, and Dr. D. J. Roberts discusses the bowel disorders of children. Excepting Dr. Mences' paper, these papers amount to little more than the report of a case or cases. More work, and more brains, and less endeavor to write simply to see one's name in print, or advertise one's self as a person fit to treat certain kinds of diseases, would give us better results in all our State societies.

Reprints of Articles on Diseases of Eye, Ear and Throat.*

Why these papers should have been repeated, their authors know better than we. Most of them we read on their original publication and abstracted all we thought new or of special interest to the general profession. Doubtless the reprint was made to reach a different class of people from that reached by the original journal. At any rate this reprinting business has the merit of "adding line to line and precept upon precept, here a little and there a little." Most of the papers are well written and some of them of great value.

"Color blindness and defective sight." By B. Joy Jeffries, M. D.

"The Galvano-cautery as a therapeutic measure in chronic, nasal and naso-pharyngeal catarrh," from St. Louis *Med. Jour.*

"Ophthalmic Operations" with remarks on after treatment. By A. Sibley Campbell, M. D. From Trans. Georgia State Med. Soc.

"The Present State of Ophthalmology," "The Present State of Otology," "A report on Otology." By S. J. Jones, M. D. From Trans. Illinois State Medical Society.

"Indication of an early trepanation of the mastoid process in acute purulent otitis, with implication of mastoid cells." By Dr. F. C. Holtz. From Archives Otology.

"Contribution to the pathology of the temporal bone." By Thos. R. Pooley, M.D. From Tran. Amer. Otological Society.

"Sympathetic Affections of the Eye," "Diabetic Cataract and Iritis." By C. J. Lundy. Reprints from Leonard's *Med. Jour.* and the Michigan *Med. News.*

"Acute suppurative otitis," "Lecture on inversion of lower eyelid." By Dr. F. C. Holtz. From Chicago *Med. Jour.*

*TRANSACTIONS of the Society of the Alumni of the Medical College of Ohio. Paper; pages 171. 1880.

†WHAT TO DO FIRST IN ACCIDENTS OR POISONING. By Charles W. Dalles, M. D. Cloth; pages 64. 1880. Philadelphia; Presley Blakiston. Price 50c.

‡Transactions of the Medical Society of the State of Tennessee at its meeting in 1880. Paper; pages 160. Nashville, Tenn.

Abstracts from Exchanges.

Prepared by Judson Bradley, M. D., Albert B. Lyons, M. D.
and E. A. Chapoton, M. D.

Anatomy.

METHOD OF PRESERVING THE BRAIN.—Prof. Carlo Giacomini, of Turin, has described a process for preserving the brain and nerves which promises to be very useful to the anatomist and pathologist. Dr. Allen Thomson, (*The Brain*, July 1880), endorses its efficiency, and describes it as follows: "The newly extracted brain is placed in a saturated solution of the chloride of zinc, with the membranes still adhering to it; and after an immersion for about forty-eight hours the membranes and blood vessels may with ease be removed, care being taken to preserve the surface as entire as possible. The brain at first naturally floats in the solution, so that it must be turned in it from time to time till the whole is acted upon, and from the increase of specific gravity it at last sinks in the solution. This generally occurs after two or three days further immersion, and then the brain is to be transferred from the solution to alcohol of commerce. By this part of the process the brain loses about a twentieth or twenty-fifth part of its weight; should there be reason to believe that the brain has suffered from the body having been kept too long after death, or if it is wished to examine it in situ, the induration may be effected by the injection of 600 grammes of the saturated chloride of zinc solution into the internal carotid arteries. The brain, when transferred to the alcohol, sinks in that fluid, and precautions must be taken by frequently changing its position to prevent any alteration of form by pressure against the sides or bottom of the vessel in which it is laid. After remaining ten or twelve days in the alcohol the brain is ready to be transferred to the glycerine. For this purpose colorless phenicated glycerine (in the proportion of 1 to 100) is found to answer best. The brain must remain in the glycerine for a number of days till it is thoroughly impregnated with it when it will be found to have regained from 5 to 6½ ozs. in weight. It is then removed from the glycerine and placed in any convenient situation to allow of some dessication and the exudation of superfluous fluid, and it may either be preserved in this state, or better still it may be

covered with one or more layers of a varnish of caoutchouc or marine glue which does not materially alter its appearance or consistence, protects the surface from the adhesion of dust and from mechanical injury, and enables the preparation to be handled pretty freely without risk of breaking the surface. Preparations made in this manner may be kept in close cases for years without any change. The natural form and color of the brain are in great measure maintained and even the distinction of the grey and white substance, and the fibrous character of the latter are preserved in such a manner that thin slices can be made, and dissections of the preserved brains, much the same way as in a fresh brain, or in one which has been successfully preserved in alcohol. Brains thus prepared are admirably adapted for purposes of exhibition and demonstration, and for the study of the external form and larger structure.

Physiology.

WHAT IS THE SEAT OF THE FORMATION OF UREA IN THE BODY?—Dr. A. Gamgee (*Brit. Med. Jour.*, September 4, 1880,) shows that a large part of our knowledge upon this subject is based upon clinical observation as distinct from physiological experiment. The whole of the nitrogen which finds its way into the body is introduced in a proteid form; and of this nitrogen, at least eleven-twelfths escape from the body in the urine, chiefly as urea. Where is nitrogen formed into urea, and how? Long since the researches of Christison, Prévost, Dumas and others on Bright's disease showed that the kidneys eliminate urea from the organism. Observers have asserted that urea was both generated and separated in the kidneys. The experiments upon which this statement was based, are: when the kidneys are extirpated there is no accumulation of urea in the system, while if the ureters simply are tied, such accumulation always appears. A re-examination of the experiments by Meissner and Voit showed them to be both incorrect and misleading. Thus it may fairly be said that the kidneys have no important function in urea formation. Is urea formed in the blood? It is impossible to deny that in the normal physiological changes of the protoplasmic structures of the blood some nitrogen possibly assumes the form of urea. But it is certain that the blood gives rise to

extremely little urea. Is urea formed in the normal activity of the tissues? Elaborate series of experiments conducted in many ways have established the practical independence of urea secretion and muscular exercise. Is urea produced in the nervous system? There is certainly a little urea to be detected in nerves and brain substance, but not enough to warrant the view that any considerable fraction of that excreted arises there, especially if we are allowed to assume from the slow wasting of nerve tissue during inanition, that the normal tissue changes of nerve are slow. Does diet modify the amount of urea excreted? Undoubtedly. A dog whose normal excretion of urea is six to eight grammes daily may, by increasing its nitrogenous food, be made to excrete 80 to 130 grammes in the same time. If further we examine the rate of excretion of urea after injection of nitrogenous food, we find little or no rise of excretion in the first hour, while from the second to the sixth the excretion rises to a very great height. Now, this is precisely the period in which the digestive processes reach their maximum, *i.e.*, when the absorption of proteids and their immediate derivatives from the alimentary canal is greatest. If urea be not found in quantity in muscle, in blood or in nerves, where is it more likely to arise than in the glands? The simplicity of a secreted fluid is no index whatever of a simple process of separation from the body. The salivary juice is simple in construction, but the glandular processes of its secretion are complex, as we know from the great heat evolved; especially is the blood from the liver very hot. There is much reason to suppose that proteid matters are rapidly broken down, in the processes of secretion generally; and when we turn to the case of the liver, this view is supported abundantly by other facts. Glycogen may be stored up in the liver, even on a proteid diet, a circumstance which seems to render it very probable that proteids are split up in that organ. If it could be proved that urea is formed in the liver, we should have absolute proof that proteids are decomposed there. The experiments of Heynsius, Meissner, Cyon, Gschleiden and Gangjee show that urea is formed in the liver, but they do not show that it is formed nowhere else. The pathological aspects of the question are extremely important and suggestive. Numerous cases are

known connecting the liver with excretion of the urea. Thus, in the case of Bouchardat a sudden attack of jaundice enlarged the excretion of urea four fold. Many other cases were adduced, as observed by Genevois, Parkes, Vogel, Frerichs, etc. In order to obtain thoroughly satisfactory information from future investigations, it will be necessary to rigorously determine the amount of nitrogen in the food, as well as the total amount of nitrogen in the urine and urea.

HUMAN EPIDERMIC TISSUES — THEIR GROWTH.—Moleschott (*Untersuch. zur Naturlehre.—London Med. Record.*) gives the following as the results of extended researches on the growth of hair. (1) By frequent cutting, in an observation extending over a year, on eleven persons, he found an average production of 0.20 grammes daily. The watery contents of the hair amount, on an average to 13.14 per cent.; the loss of nitrogen in this way amounts to 0.0287 gramme, or 0.0615 gramme of urea. (2) The daily growth of the hair between eighteen and twenty-six years of age is, on the average, 0.20 gramme; between thirty-two and forty-five years of age, on the contrary, only 0.14. The smallest production of hair is associated with the larger body weight, but the greater body weight was always found associated with an older age. (3) The production of hair is greater during the summer. (4) The frequent cutting of the hair increases its production. (5) The nails of the author's hands, in the course of a year, grew 1.825 grammes; in another year, 2.086. The nails grow most rapidly during summer. (6) After a boil on the side of a finger, Moleschott lost a piece of epidermis which weighed 0.0227 gramme. The loss was fully recovered in thirty-four days. The surface of the body measures, on an average, 1.614 square meters. If it be assumed that the epidermis of the entire body is renewed to the thickness of 0.125 millimeters in thirty-four days, there is a daily loss of 14.35 grammes of epidermic substance through the unobserved desquamation. This corresponds to 2.1 grammes of nitrogen, or 4.5 grammes of urea. (7) While suffering from catarrh of the bladder, Moleschott found the production of hair and nails diminished. (8) He points out that by the epidermic tissues is eliminated one-seventh the amount of nitrogen eliminated by the urine.

Toxicology.

TOBACCO SMOKE—ITS CONSTITUENTS.—M. M. G. Le Bon and G. Noel (*Brit. Med. Jour.*, July 17, 1880) state that they have extracted from tobacco smoke (1) prussic acid; (2) an alkaloid having an agreeable odor, but dangerous to breathe and as poisonous as nicotine, since a dose of one-twentieth of a grain destroys animal life; (3) aromatic principles as yet undetermined, which contribute with the above mentioned alkaloid to give to tobacco its characteristic odor. They say that tobacco smoke owes the toxic properties attributed hitherto solely to the nicotine contained in it, as much to the other substances they have discovered in it. The alkaloid pointed out seems to be identical with the compound known as collidine, of which the existence had already been noted in the course of distillation of several organic substances, but of which the toxic and physiological properties were overlooked. Collidine, however, plays a fundamental part in tobacco smoke, and it is to its presence that certain kinds of tobacco, comparatively poor in nicotine and yet very strong in smoking, owe their properties.

Action of Medicine.

TOBACCO: ITS MENTAL AND PHYSICAL EFFECTS.—Dr. Thos. F. Rumbold (*Hygiene of Catarrh*) gives his views of the above as follows: (1) Tobacco produces an exhilarating effect on those individuals only who have acquired the tobacco habit. (2) The pleasurable effect arising from the use of tobacco is not experienced except during the time it is depressing the system. (3) It is quite questionable whether the exhilaration following the use of tobacco causes the consumer of it to enjoy life to a greater degree than do those who do not use it. (4) The congestion occasioned by the action of tobacco on the mucous membrane of the superior portion of the respiratory tract resembles in many respects the congestion resulting from the effects of a cold, and, like the effects of a cold, some of its effects are transitory and some are permanent. (5) The local effect of tobacco on the mucous membrane of the nose, throat and ears is as predisposing to catarrhal disease, as is inefficient and insufficient clothing in the case of females. (6) The local effect of tobacco on the mucous membrane of the superior portion of the respiratory tract causes a more permanent

relaxation and congestion than any known agent. (7) As tobacco depresses the system while it is producing its pleasurable sensation and as it prepares the mucous membrane (by causing a more permanent relaxation and congestion than any known agent) to take on catarrhal inflammation from even slight exposure to colds, it should require no further evidence to show that its use ought to be discontinued by every catarrhal patient. The only question remaining to be answered is, shall its use be discontinued at once or shall the victim "taper off" in his endeavor to become master of himself? The writer acknowledges but one successful method, viz., its discontinuance at once.

Pathology.

INFLUENCE OF INJURIES AND MORBID CONDITIONS OF THE NERVOUS SYSTEM ON NUTRITION.—Mr. Jonathan Hutchinson (*Brit. Med. Jour.*, Sept. 4) says, that while some hold that the phenomena under consideration are to be explained by reference to the functions of the vaso-motor nerves, others teach that the nervous system has achieved control over nutrition, in addition to that which it exerts by regulating the supply of blood; and an advanced section of this school recognize the existence of special trophic nerves. Among the facts which seem to discredit the hypothesis of trophic nerves and of direct trophic influence as a nerve function, are the following: The great rarity of some of the diseases supposed to illustrate it; the very peculiar features of some of them; their remarkable differences, one from another; the close resemblance between most of them and certain diseases which there is no reason to suspect of being of neurotic origin. Among the principal disorders which have been supposed to be due to nerve influence, are bed sores and cystitis in the paralyzed; ulceration of the cornea in paralysis of the fifth nerve; sympathetic ophthalmia and neurotic iritis; herpes zoster and other forms of herpes; glossy skin after injuries to nerves; arthritis, after spinal disease or injury; *digiti mortui* and symmetrical gangrene of the extremities; *morphœa* and allied forms of sclerosis cutis; disorganization of joints in locomotor ataxy; brittle bones and osteomalacia in the insane and in disorders of the nervous system; disturbances of nutrition of the skin and bones in leprosy. He also gives reasons

for doubting that the nerves have a direct power in the production of these conditions by an influence transmitted to the periphery without reference to the blood supply. Dr. Clifford Allbutt observes that although pressure and external irritation must in most cases be factors in the production of bed sores, nevertheless they can scarcely be the only causes. He adduces cases of anæsthesia of the buttocks and limbs without bed sores, and he contrasted cases of anæsthesia in some of which, in spite of muscular wasting, the skin remained velvety and even fat, and in which no tendency to bed sore occurred. He denies that in those worst cases of bed sore rapidly following paraplegia and hemiplegia, the care given to other cases of anæsthetic palsies would arrest the local sloughing. This to be continued was too profound and rapid to be compared with the effects of excoriation or pressure upon a part otherwise in normal nutrition. In two cases of paralysis of the fifth nerve he had failed by closing the eyelids to prevent ulceration of the cornea. With respect to unilateral furred tongue he could scarcely believe that mechanical causes were alone concerned, as these would not explain the almost constant thick fur upon the tongue in ordinary sudden sanguineous apoplexy—a state usually attributed to disorder of the liver and treated with calomel, etc. In respect of the influence of nerves upon nutrition, he thinks that in the development of life, the nervous system gains an increasing control and domination over nutrition; that nutrition once independent becomes more and more subordinate to a central government, until finally, it is so enthralled that it can not stand alone. Lizards remade an amputated tail; the sound eye of a dog could defy ciliary ophthalmitis in the other eye, and so forth; so that results of operations in guinea pigs must not be taken as parallel with those of injuries of like extent in man. Respecting the neurotic origin of herpes zoster, a case is described in which first severe pain and herpes zoster appeared around one-half of the trunk of a woman whose upper dorsal spine had been injured by a fall. Dr. Buzzard said that while admitting that unilateral furring of the tongue could be caused by disuse, he thought that it might also depend upon the influence of a nerve. In support of this view he cited a case of neuralgia

of the fifth nerve, in which salivation occurred on the same side with furring of the tongue, an association which suggested a common cause. The peculiar character of the bed sores occurring in the course of acute myelitis, which involved the posterior roots of nerves, contrasting strongly with the trifling wounds which might occasionally happen in cases of equal powerlessness, but in which there was no loss of sensibility, pointed to the operation of an influence beyond that of mere pressure in the production of such lesions. However helpless or neglected were patients suffering from anterior polio-myelitis (adults and children) they were never in his experience attacked with the characteristic bed sore belonging to transverse myelitis. Any sores that might occur (and such were rare and due to neglect) were comparatively superficial and easily healed.

READY METHOD OF MAKING BRAIN SECTIONS AT POST MORTEM EXAMINATIONS.—Dr. J. C. Dalton, (*Medical Record*, July 31), has devised a method of making brain sections by which one can tell exactly the relations of any lesion found in white or gray matter. He uses an open box in which to hold the brain. An idea of its shape may be obtained by taking a large cigar box, removing both ends and the top, then cutting down the two sides at each end, leaving the highest part in the middle which is connected by a bar of wood. Through this elevated middle portion of the two sides are vertical slits and through these the knife is passed when the sections are made. The dimensions of the box are of much importance, as it should not be too large for the smaller sized brains nor too small for the large ones. The bottom is formed of a board $1\frac{1}{2}$ inches thick, $14\frac{1}{2}$ inches long, $5\frac{1}{2}$ inches wide. The sides are formed of pieces of wood one inch thick and six inches high. The slit for the knife is one-twelfth of an inch wide. In the centre of the wooden bar connecting the two sides is a hole. In this is placed the tube that leads from the lubricating fluid (glycerine and water). The lubricating fluid is turned on while the sections are being made. The whole contrivance is placed in a shallow pan. The knife used has a blade 18 inches long by one inch wide. When the sections are to be made, the brain is placed on its base to the left of the vertical slit. It is then pushed along with the hand until the place where

the first section is to be made is opposite the vertical slits. To enable the brain to slide easily the bottom of the box is fitted with a plate of glass which is covered with the lubricating fluid. The knife also must be moistened with the same fluid. The brain is held firmly in position by holding it with the hand covered by a piece of raw cotton. The sections are all made of the same width, two-eighths of an inch. They are received upon a loose piece of glass and covered with water to preserve their freshness. By placing a piece of ground glass over these sections, with a pencil exact tracings can easily be made of both normal and morbid conditions. These tracings can be readily transferred to white paper and these in turn easily photographed.

Practical Medicine.

JAUNDICE—THE DIAGNOSIS OF ITS CAUSE.

—Dr. Legg, (*Work on Jaundice*, page 376) gives the following aids: (1) Should the jaundice be recent and no perceptible disease be found in the liver or elsewhere, the case is probably one of simple jaundice. (2) The jaundice being recent but acute, disease of other parts present such as pneumonia pyæmia, typhoid and relapsing fevers and the like, delirium tremens, poisoning by chloroform, chloral hydrate and other drugs and snake bites, the cause of the jaundice is not known with any certainty; but it is probably the same as in simple jaundice. (3) If the jaundice be accompanied or preceded by attack of severe shooting pains in the right hypochondrium; or if the jaundice be intermittent, one attack quickly succeeding the other, the cause is probably gall stones. (4) An intense persistent jaundice, if approaching twelve months in duration, is due, probably, not to cancer but to gall stones, hydatids or stricture of the duct. (5) Slight persistent jaundice is, probably, due to changes in the texture, as cirrhosis, nutmeg liver, etc. (6) Jaundice with great enlargement of the liver is, probably, due to cancer. (7) Jaundice complicated with ascites is, probably, due to cirrhosis. (8) Delirium setting in during an acute jaundice suggests icterus gravis.

SPHYGMOGRAPH: WHAT HAS IT DONE FOR PRACTICAL MEDICINE.—Dr. J. B. Bradbury (*Brit. Med. Jour.*, August 14, 1880) tells us what the sphygmograph has done for prac-

tical medicine during the past ten years as follows: The sphygmograph enables us to estimate the amount of arterial tension by the height of the tidal wave of a pulse tracing, and has shown us that a high arterial exists in acute as well as chronic Bright's disease. This high blood pressure is clinically of the highest importance and should be watched as carefully as the body temperature. It gives the earliest indication of the grave series of degenerative changes throughout the body known as chronic Bright's disease, which, if neglected, may produce disastrous results in disease both of the arteries and heart. High blood pressure is the cause of all so-called heart disease in old persons. Dr. Hanfield Jones has recorded a series of cases in which, without albuminuria or other symptom of Bright's disease, the sphygmograph sufficed to make out the case from the high blood pressure. He believes that in the near future elder people will place themselves constantly under the care of a physician to supervise their vital functions, regulate their mode of life and teach them so to live as to stay the morbid changes which they know to be silently progressing. High blood pressure gives to many functional as well as structural diseases, as in pregnancy. It may be recognized in early life before it has given rise to any diseased action. It thus constitutes a diathesis, depending more or less on the temperament. Such a condition is to be carefully watched lest it develop into chronic Bright's disease. In valvular heart disease the sphygmograph enables us better to gauge the extent of the lesion, and so aids us in prognosis. By it we can watch the exact effects of treatment and the progress of disease. In some cases the sphygmograph aids in determining the site of an aneurism, and in all cases it is of great value in determining the amount of arterial tension and the effect of treatment in its reduction. The condition of high arterial tension occurs in those who eat too much nitrogenous food for the exercise they take, thus overtaxing their digestive organs and loading their blood with imperfectly assimilated food. Illustrating the value of the sphygmograph is the following experience of Dr. L. Brunton: Some time ago he was able to watch a patient every hour of the day and the night during an attack of angina pectoris, observing its every phase. By the aid of Marey's sphygmograph he discovered that

during the paroxysms the blood pressure rose and the pulse became quick. By the observations of Marey he was able to see that the arterioles were excessively contracted so that the increased blood pressure did not arise from the quickened pulse. As the pressure rose severe pain came on in the heart, and when the pressure fell the pain disappeared. Looking upon the pressure as the cause of the pain, he bled his patient and prevented recurring attacks. His next thought was to treat the case without bleeding. Remembering Richardson's researches, proving that nitrite of amyl had the power of dilating the smaller arterioles, he administered the remedy and the pressure disappeared. Thus the sphygmograph both revealed the nature of the pathological state during angina pectoris and indicated the treatment for it. In the albuminuria of adolescents, the blood pressure is low instead of high. In these cases the prognosis is good. The condition depends probably upon an atony of the blood vessels.

OPHTHALMOLOGY—ITS RECENT CONTRIBUTIONS TO PRACTICAL MEDICINE.—Dr. J. A. Bradbury, (*British Medical Journal*, Aug., 1880), gives the following list: It shows that many cases of supposed cerebral disease take their origin in defects of ocular refraction, and that the relief of the ocular defect is followed by the cure of the supposed cerebral trouble. It sometimes enables us to recognize, by a peculiar retinal hæmorrhage, some forms of chronic Bright's disease before any other symptoms appear. By detecting an embolus in the central retinal artery, attention is sometimes directed for the first time to the existence of a cardiac affection. Hutchinson says that the patches of disorganization are almost as pathognomonic of inherited syphilis as notched teeth. These patches can sometimes be recognized when no other sign of the disease is present. Gowers calls attention to the diminished calibre of the retinal arteries in some cases of Bright's disease with increased arterial tension. Quinke says that with aortic regurgitation we get spontaneous visible pulsation of the retinal vessels. Mackenzie and others direct attention to retinal hæmorrhage in connection with purpura, leucocythæmia, idiopathic anæmia, ague and diabetes. Retinal hæmorrhages have also been observed in septicæmia and pyæmia. As they occur

during the last two or three days of life they compel an unfavorable prognosis. The ophthalmoscope also reveals the simple atrophy of the optic nerve which appears in some cases of locomotor ataxy, and helps in the early recognition of the disease. This, in connection with "tendon reflex," or the presence of the lightning like pains, is an almost certain indication that the disease has commenced. The recognition of optic neuritis is of great value in the diagnosis and prognosis of intra-cranial tumors. Gowers says that it is present in at least four-fifths of these cases at some period of their growth; and its subsidence when it has not reached any considerable degree of intensity may be taken as indicating in most cases a retrocession of the growth; and a neuritis of a very chronic course affords evidence that the progress of the tumor is equally chronic.

Obstetrics.

TWIN-LABOR—DOUBLE VERSION.—P. W. Van Peyma, M. D., (*Buffalo Med. Jour.*, July, 1880) reports a case of twin pregnancy and labor in which the labor progressed slowly, and on closer examination it was found that the child presenting lay transversely across the uterus. This was delivered by turning by the feet, when it was found that another fœtus was in the uterus and lying transversely. This also was turned by the feet and delivered, when the placenta followed and the labor came to a favorable termination. The children are alive and well.

ANÆSTHESIA IN LABOR.—Wm. H. Mays, M. D., (*Pacific Med. and Sur. Jour.*, July, 1880) has an article under the above caption, and offers the following propositions: (1) "Anæsthesia is as necessary to assuage the sufferings of child-birth as it is in surgical operations generally, and ought to be more frequently resorted to in normal as well as abnormal labors." (2) "Anæsthesia properly used does not diminish the force of uterine contractions, but rather advances labor by lessening the resistance of the parturient canal." (3) "Anæsthesia, properly used, by relaxing the perineal muscles diminishes the danger of rupture of the perineum." (4) "Anæsthesia, properly used, has no injurious effect upon the child." The author urges, in conclusion, that there is nothing to forbid and everything to commend a more frequent resort to chloroform in child-birth.

Diseases of Women.**ACIDITY AS A CAUSE OF STERILITY.—**

Dr. Charrier, (*Bulletin de Therapeutique—Med. Times and Gazette*), concludes an interesting paper as follows: (1) In some rare cases in women who are otherwise quite well the utero-vaginal secretions are quite sour as is seen by their reddening litmus. (2) This acid may prove an absolute obstacle to fertility, as spermatozoa are killed in even a slightly acid medium. (3) This abnormal state is to be remedied by an alkaline treatment, by means of alkaline drinks and baths and tepid alkaline injections. (4) Cases are reported showing that when this acid condition is neutralized, conception may take place. (5) This disappearance of acidity under the influence of alkaline treatment may explain the success which is obtained at alkaline and sulphuro-alkaline mineral water establishments in the treatment of sterility. Prof. Pajot entirely confirms these statements saying, that for many years he has been in the habit of prescribing injections of Vichy water in cases of acid vaginal discharges. He observes that fair women are most subject to these acid secretions.

ATRESIA OF THE FEMALE GENITAL PASSAGES.—

Dr. E. W. Jenks, (*Chicago Medical Journal*, Sept., 1880), concludes a paper on the above subject as follows: (1) As fatal results have followed operations for the simplest varieties of atresia, the surgeon should apprise the patient or her friends of every possible danger prior to operating. (2) In case of menstrual retention from vulvar, vaginal or uterine atresia, the fluid should not be evacuated via the rectum with a trocar, but in the route pursued by the vagina. (3) When there is reason for believing that there is a large quantity of menstrual fluid distending the uterus or Fallopian tubes, the safest mode of evacuating it is by means of an aspirator prior to any surgical procedure for the cure of an atresia. (4) The evacuation of menstrual fluid should never be through a small orifice (with the exception of aspiration), but through a free opening, after which the vagina and uterus should be thoroughly washed out with warm water as the best means of preventing or curing septicæmia or inflammation. (5) Septicæmia, inflammation and rupture of the Fallopian tubes are the chief disasters attending atresia or following

operations for its cure. (6) Congenital atresia of the vagina can be best relieved by tearing with the finger, as the rudimentary canal already existing serves a similar purpose to the surgeon that an instrumental director does in cutting operations; but the accidental forms require cutting for which operation scissors are preferable to the knife; in some cases both cutting and tearing are requisite. (7) There is reason for believing that when there is an accumulation of menstrual material within the vagina and uterus, particularly within the latter, that the best time to operate is immediately prior to the menstrual date as the patency of the newly opened canal is thus better insured. (8) Notwithstanding the dangers attending these operations, there is good reason to believe that by care and caution and with a proper use of antiseptics, favorable results may be expected from operations for either congenital or accidental atresias.

DANGERS OF UTERINE MANIPULATIONS.—

Dr. Geo. T. Engelmann, (*Amer. Practitioner*, Sept., 1880), presents a large number of authentic instances in which the gravest effects have attended even simple manipulations of the uterus. From these facts, which should be read by every practitioner, he concludes: (1) Uterine manipulations necessitate the greatest possible caution, especially in first examinations; but even the oft treated organ may in an apparent freak under unknown conditions resent a most trifling interference. (2) No manipulation or operation is without danger, and before attempting either, certain physiological and pathological conditions must be guarded against, menstruation, pregnancy, and involution on the one hand, and the remnants of cellulitis and peritonitis on the other; above all, acute affections. These precautions may be often neglected, but now and then a punishment swiftly follows. (3) During operations we must moreover observe (a) the sanitary condition of the city. The existence of epidemics—especially of puerperal fever, erysipelas, or diphtheria—decidedly contra-indicates operation; and it seems that the spring of the year is most fraught with these dangers. (b) Absolute cleanliness, if not Listerism in its details, as far as applicable. (4) After operations—I am still referring to the most simple—the patient must be at least for a reasonable time confined in bed. Upon this

the surgeon must insist, however, ridiculous it may seem to the patient without ache, pain or discomfort of any kind. Even after recovery, uterine treatment patients should observe a brief period of rest.

Laryngology.

PHARYNGITIS SICCA — ITS TREATMENT.—

Dr. E. L. Shurly (*Med. Record*) says that of about two hundred patients, of all ages, under treatment for various diseases, both hospital and private, whose pharynges he had examined, nearly one-half presented the objective symptoms of pharyngeal or nasopharyngeal catarrh, or follicular pharyngitis. Of these there were only three with well marked appearances of pharyngitis sicca. Most of these cases were chronic, and occurred in persons of middle or advanced life. Hence, he thought that this morbid condition was neither always an ultimate stage of chronic pharyngeal catarrh or follicular pharyngitis, nor an accompaniment of old age, nor a condition depending upon so-called scrofula; but a local change, which depended not only upon previous disease of the mucous membrane, but upon some peculiar constitutional defect. He thought, therefore, that before any plan of local treatment was instituted, a very careful investigation of the vital status of the patient should be made, particularly of the *primæ viæ*, and a proper systematic treatment at once adopted. As aids to digestion, he had found cornin or zanthoxylin, alone or combined with an acid, to act the best. The tincture of columbo and Fowler's solution were also highly beneficial in some cases, while in the subjects of malarial toxæmia the sulphate or phosphate of quinine was indicated. In those cases characterized by a constant deficiency or perversion of the hepatic and intestinal secretions, he had found in addition to general tonic treatment the use of several large doses of ammonia mur. or soda phosphate to yield excellent results. Cod liver oil and iodine were, of course, indicated in some instances, but great care was necessary in their use lest by an unfavorable effect upon the stomach their beneficial action be defeated. Hygienic treatment and avoidance of all impure air was, of course, to be enjoined. Though the effects of local treatment were too often transient, it was not without benefit in almost all cases. Applications of iodine, nitrate of

silver, sulphate of copper, petroleum oil and the galvanic current had proved most beneficial in his hands.

Surgery.

CHANCER OF THE MEATUS AND URETHRA IN THE MALE.—Dr. J. N. Hyde (*Chicago Med. Jour.*, Aug. 1880) concludes an interesting discussion thus: (1) Chancres of the meatus and of the urethra are symptomatically distinct. (2) Chancres of the meatus are chiefly remarkable for their irritability, in consequence of the passage over them of the urinary current, and their tendency to phagedæna and the characteristic deformity of the glans which they frequently occasion. (3) Intra-urethral chancre, as distinguished from visible chancre of the meatus and chancre involving in part only the rim of the urethral valve, is of exceedingly rare occurrence. (4) Intra-urethral chancre, invisible or but imperfectly visible to the eye unaided by the endoscope, can usually be distinguished as such in consequence of the mass of induration which lies immediately beneath the urethral mucous membrane, at the site of the lesion, and is readily recognized by the touch through the external tissues of the male organ. (5) Intra-urethral chancres are accompanied by very scant or insignificant discharge, and when the latter is present it bears no proportion to evident signs of disease connected with the sclerosis. (6) The reddened furrow or sulcus covered with a thin secretion, visible in the floor of the fossa navicularis, especially in the subjects of gleet, should never be mistaken for intra-urethral chancre. (7) When a man exhibits a decidedly purulent urethral discharge, without coincident symptoms of unmistakable syphilis, he can safely be pronounced free from all danger of the last named disease, provided always the period of incubation of syphilitic chancre has in his history already lapsed. (8) Intra-urethral chancre need therefore never be mistaken for gonorrhœal discharge, as the two affections are so distinct that a differential diagnosis can usually be satisfactorily established without the aid of the endoscope. (9) For many reasons the endoscope should be regarded as a valuable adjuvant in the diagnosis of urethral disorders, and recourse should be had to it in all doubtful cases.

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Original Communications.

Phthisis; Lead Poisoning.—A Clinic.

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GENTLEMEN, you hear this young woman tell her story. I will repeat it after her that you may hear it distinctly. She says she had a very bad cough; could not breathe at night; when she lay down she coughed continually; she had a severe pain in her left lung. Here it may be worth while to remark that pain is of very little significance in the diagnosis of phthisis. More have the disease without pain than with, and when pain occurs even in these patients it is almost always of a lancinating character. She had no appetite, no relish for any food; what she took soured on her stomach, and she had to vomit. She says she vomits now without coughing, but at first she vomited only when she coughed. That is a point of some little importance. Many persons who have a cough and raise phlegm find that it catches in the throat and acts like the finger, or a feather put into the throat, and produces vomiting. That kind of vomiting is not the fault of the stomach. The stomach will take food again and digest it after the vomiting is over. This appears to have been of that character until lately, because she usually always coughed before vomiting. But now she vomits without coughing, so that the stomach has got into a bad habit, perhaps.

She has very severe night sweats. They began three weeks ago. Then, when she gets up, she has chills through the day, and after the chills she has fever. She says she has had a cough for two years, but the night sweats she has had only three weeks. She says she did not have night sweats at all before three weeks ago. The sweating was on

the chest, neck and head, but it has been since last week only that her head has perspired. The perspirations in phthisis are very variable in that respect. We sometimes see a patient who will sweat only on one side; sometimes the lower limbs are the seat of the perspiration, and it occurs nowhere else; but, most commonly, it is about the head and shoulders and upper part of the chest. Occasionally it is universal.

She has had no appetite at all for the last five or six months. She says she has lived on stimulants, but when asked what she meant by that, she says she has lived on milk and beef tea. That is a very mild stimulant; sometimes she took a little milk punch, but not very often as it made her stomach sick. Her food lies heavily on her stomach, and she has a good deal of wind lie on her stomach also.

She says she has coughed up blood only two or three times, and then only a mouthful. It came up with a cough. The first occurrence of that kind happened last winter, so that she had a cough for a year and a half before she coughed up any blood.

Now, you have the patient's story, gentlemen. There is no need of a physical examination to make a diagnosis in a case like this; a case in which there has been a cough for two years, with night sweats a part of that time, and a raising of some blood from the lungs. The physical examination will teach you the extent to which the disease has gone; will give you the exact locality of it, and is, of course, of some assistance in the opinion you would form of the case; but the essentials for the diagnosis we have before us.

Now, in regard to your father and mother, are they living? "My mother is; my father is not." Her father died of inflammation of the bowels; he had no cough, and had not been sick before. Her mother has a cough from time to time, but it appears to be sim-

ply a bronchitis, coming on in the winter and at other times when she has a cold. Two of her brothers died of consumption. None of her father's or mother's relations died of consumption that she knows of, but they lost two sons from this disease. We seem to be shut out from a chance of inheritance of the disease, and yet three of the family have it, and we should try to find out whether any of the local circumstances have anything to do with it, or predispose to it. They live in New York now, but they did live in Jersey City a long time, occupying an entire small house by themselves. She was in the basement a good portion of the time; there was no cellar to the house, and the basement floor is about three steps below the level of the street. The area in front and rear she does not think was very good. Well, a place like that to live in might or might not be damp. The chances are that it would be, especially if either wall, front or rear, was covered with earth. Three feet of earth for example, lying against the rear or front wall would help very much to make a place damp. Her brothers who died of consumption were engaged in a book-binding in New York, in an elevated room, and she says it was a very airy room, but there were a good many engaged in it. She thinks there was air enough in the room for the number of persons there. There is nothing unhealthy that I know of in the occupation of binding, but often those rooms are overcrowded, and the air is adulterated by the number of persons who breathe it. It may have been so here, or it may not, I cannot tell. As to the basement room, I do not think well of it, and yet it would not seem as if three children of a family should contract disease from that cause and the others not be affected at all. But it does sometimes happen so.

I remember a family that illustrated the hereditary character of the disease in a very striking manner. The father died at perhaps fifty or fifty-five, of phthisis. He had thirteen children. The first six as they came to the age of twenty or twenty-one, began to cough, and every one of them died. The remaining seven survived and had no cough at any time, that is, except as the result of ordinary colds. Now, what had happened in him? He handed down his disease by inheritance to his six

oldest children, and then there was an entire freedom from it in the next seven, and he himself died at about fifty-five of the disease. It is difficult to say; we can not say that it is capricious, but it is varying from causes that we do not understand. It is not a matter of course, then, that children of persons who have phthisis will themselves have phthisis. It very often happens that they are quite healthy, but oftener that one or more of the children will have consumption.

Here we are a good deal baffled in finding the cause. If her brothers had been working in stone; if they were stone-cutters, it would be pretty plain in their case. Stone-cutters are especially liable to consumption from the harsh dust that they breathe. Persons who are confined a good deal in damp rooms, and in dark rooms, are more liable to it than others. But we do not find enough of any such cause to be a satisfactory reason for the occurrence of phthisis in three-eighths of a family, (there were eight in the family.)

In examining this chest we will first look at the symmetry to see whether the two sides are alike under the clavicles, as it is the upper part of the lung that is almost sure to be the first seat of the affection. There is emaciation on both sides under the clavicles, and I hardly know on which side it is most. It seems to be pretty nearly even; that is, the sinking in under the clavicle is about as much on one side as on the other. The movement of the chest on the two sides under the clavicle is nearly equal. I think it is a little freer on the left side. It seems to start first on the right side, but not to go quite so far. Yet as I look at it closely, the sinking is sharper under the clavicle at this point on the right than it is on the left side. But we do not gain much from that part of the examination.

Now, I listen to the breathing, and in listening to the breathing I wish first to ascertain whether there is very long expiratory sound, healthy or unhealthy. A bronchial respiratory sound means some consolidation of the lung, and particularly consolidation of the surface so as to bring up the sounds of movements going on deep in the lung.

The expiratory sound here is fully as long as the inspiratory, and as she breathed then it was longer. Now for the tone of

the sound. It is not the soft, gentle murmur that we call the respiratory murmur, but it is rough. Not rough enough so that there are râles, but the soft tone is replaced by a harsh one, and there is a slight approach to bronchial tone in the expiration, not in the inspiration. I do not think there are any râles on this the right side; on the left side the tone is still harsher and the respiration quite as distinct. I can almost hear distinct râles on this side.

Now, we will try the voice. The voice is decidedly louder on the right side, and has a little tone of cavity. As she coughs that develops râles; a good many of them. The cough is not absolutely cavernous. There is a sort of subsidence of the lung after the cough; the movements are in the bronchial tubes, while the chest is not moving, and this produces râles in this case, as it does very often. The râles are more abundant after coughing, but there is no approach to a cavernous sound on the left.

When she counts, the jar, the vibration communicated to my hand is two or three times more perceptible on the right side than on the left. I feel it upon both sides, but much more upon the right.

You commonly on the top of the shoulder and along down the scapula, learn more from the voice. The tissues are thick and the sounds are badly conducted; you learn therefore more from voice which gives a stronger sound than breathing, than you do from any other mode of examination. The voice is about twice as loud on the right side here as it is on the left at the top of the shoulder. And all the way down the scapula the voice is a great deal louder on the right side than it is on the left; coming to the point of the scapula the force of the voice is the same on each side. The voice is equal again below, and there seems to be nothing to prevent carrying the voice down to the lower portion of the lung.

In men I have a handy measure for the depth of the lung behind. It is the width of my hand and the length of my thumb from the inferior angle of the scapula. I place the edge of my hand against the lower angle of the scapula and measure down in that way, and mark the spot with my finger, and if the breathing goes as far as that, why, I am satisfied with it. If it does not, there is something to prevent the lung expanding

fully. In man, of course, the length of the chest is greater than in woman. We have to make allowance for that. Here it almost allows my thumb to be extended when the edge of my hand is laid against the angle of the scapula, but not quite. It is far enough however, for her. On the left side it is fully man's length.

There are no râles here on the right side. The disease then that keeps up the cough is not bronchitis. Râles from bronchitis are heard almost always on the two sides and over the whole extent of the lung, and on account of the effects of gravitation when one sits up, or stands, the lower part of the lung posteriorly will be commonly more full of râles than the back part. We do not have them very abundant in front except when she coughs. The cough on the right side behind does not produce râles anywhere.

Now then, by this examination, we have settled the location of what the general signs made certain. The location of the disease, however, the general signs could not determine for us. We have it, now, at the upper part of each lung, a certain amount of morbid deposit with a good deal more on the right than on the left, and we have further the information that it has not advanced to breaking up of any portion of the lung. It gradually fills in the tissue of the lung, and makes it firmer and more conductile of sound than natural. And yet while there is a little of the cavernous tone to the expiration and the cough, I suppose that that is brought up from the bronchial tubes, as in dilatation of the bronchial tubes. I do not think there is a cavity.

Now then comes another question with regard to the curableness of such a case, and we start with perhaps the most important fact in our prognosis, that there appears to be no hereditary tendency to the disease. A great many more recover from consumption in whom there is no hereditary tendency than among those who have it.

The treatment of phthisis is in very great degree hygienic. Medicines frequently do no good at all. A gentleman came to me a good many years ago who had been for a year under my advice and was improving, and he said, "doctor, do you remember that you have never sent me to the druggist with a prescription?" "Yes, I remember that, and a great many others that I have not

sent to a druggist with a prescription." But I had sent him off to Mexico to travel on horseback in the State of Chihuahua, where he dressed himself up like a Mexican, and went about on his horse all over the country.

The first requisite for the welfare of a patient who is suffering in this way is fresh air. I said the first; I do not know that I should say the first, for food is more important even than that, to be a great deal in the open air, and take as much exercise as the patient can comfortably take. If the patient can ride on horseback, that, perhaps, is as good exercise as can be taken. If, owing to circumstances, he can not pay for the expense of a horse, why, walking in the freshest air that the patient can reach is the next good thing, and up to about the exhaustion of the strength daily.

Then food: In this case we are embarrassed with the fact that the patient has no appetite, and not only has no appetite, but when she takes food she is very apt to vomit it. The kind of food that I attach most importance to is, that that contains some oil, and milk is the only one that is accessible here that fulfills the indication exactly. I prescribe from a quart to a quart and a half for all patients who can take it that are affected in this way. I usually advise them to take a couple of glasses with their breakfast, and a couple with their dinner, and two more if they can in the evening. Cream also may be taken. Cod-liver oil is very valuable but many persons are disgusted with it, and take it at any rate with difficulty. It is very rarely that you find a person disgusted with cream; the cream of cows' milk. If they can get that it will fill all the indications of cod-liver oil. They are making now an emulsion of cod-liver oil which is much more palatable than cod-liver oil, but it has to be taken in larger quantity because the oil is diluted about two thirds in the emulsion. They have to take three parts for one.

As to the use of alcoholics in phthisis, it seems to me that they are over-valued, at any rate by some of the brethren. I scarcely give them at all, and I see a great many throw off the disease, particularly when it is not far advanced. Of course, if there is a sinking spell, a faintness or anything of that sort, a single portion of brandy or whisky may be of important service; but for habitual use, I very rarely prescribe it. In this

instance, however, I prescribe a little sherry, and advise that it be made bitter with the compound tincture of gentian, a teaspoonful in half a wine glass five minutes before eating; in the hope that it will awaken the appetite and give the stomach a little tone so that it may retain the food.

As to the vomiting, I hardly know what to say about that, inasmuch as she, the patient, recognizes the difference between the vomiting that is caused by the delay of mucus in the throat and that that she has now. Perhaps, something to aid digestion will do as well as anything, and if in the middle of her meal she takes ten grains of pepsine it may possibly put the food in a condition not to tempt the stomach to discharge it. I would advise her to do that, to take a teaspoonful of tincture of gentian in half a wine glass before eating, and the pepsine in the middle of the meal. I usually give it at the end, but I would prefer to give it a little chance to work upon the food while she is eating in this case. She should take the outdoor air as much as she can take without exhaustion; then the milk as an important part of her diet, and cream on her hominy or oatmeal stir-about, or on baked apple if she can get it. If she can not, she had better take in addition to the milk the oil that is contained in a teaspoonful of cod-liver oil three times a day, and that is better taken about twenty minutes after eating.

There is a mode with those who are displeased with the taste of cod-liver oil of taking it whereby the taste is covered entirely. The foam of bottled beer poured into a glass so that it is nearly full, and the oil dropped into it sinks to the bottom of course, and that which first goes into the mouth is the foam of the beer and the oil afterwards, and there is no taste about the latter. The beer covers the taste of the oil.

There is one thing more that I attach some importance to, and that is the friction of the body. Every morning have the body well rubbed with dry flannel, and in addition to that I almost always prescribe sponging the body at night with tepid water in a warm room and drying with a towel; sponging one-half the body first, drying that and throwing an overcoat or something of that kind over the shoulder, and then going on with the rest. And in the morning rubbing all over with a dry flannel, and an old

flannel shirt that is broken out under the arms and not fit for use, is about the best thing to make friction with, let a person go over the body and rub until the skin becomes reddened day after day.

I should almost fear that I would not be believed if I should tell you how many persons seem to throw off consumption in the beginning under that mode of treatment. A decided majority of those that I see do that. I have examined two persons this morning who have been suffering for months with cough, and occasional raising of blood, who are almost entirely free from any sign of the disease now.

CASE II.—This man has been complaining of pain in his head for the past four months. He attributes it to a cold. "One doctor said I have too much blood; and another said I have not enough blood." Well, I think you can strike the difference between them conveniently, and keep what you have. What is your business? "A painter." Using white lead? "Yes, sir."

I was in Vermont a great many years ago. I told this story before, but I do not suppose you all have heard it. They were laying a lead pipe across the common to carry water across the bridge over the river, and making perhaps sixty or seventy feet of it. It led from a spring on the hill side. I saw a considerable number of men standing, looking on, and I stopped myself, and asked the man who was laying the pipe what it was going to be used for. He said he did not know; it was going over to Mr. Haskill's garden. I said, "are people to drink of the water that runs through this long lead pipe?" He said he did not know. Another person said it was for watering the garden. I said, "it may be innocent; I do not think plants will get belly ache from it." A man standing by—it was time of court and people had come from neighboring towns—said, "do you say there is any harm in water that comes through a lead pipe?" "There is sometimes." "Why, we have had water come through lead pipe for years at our house; it runs forty rods, and nobody has had any belly ache from it." I said, "how is it as to pain? Do any of the family have any pains?" "Pain!" says he, "good God, what a pain I have in the back of my neck!" Lead is capable of producing neuralgia.

This man tells us that he is a painter.

Now we must investigate whether his headache is neuralgic and comes from his occupation, and one of the best tests for that is to examine the gums. Some fifty or sixty years ago a Mr. Burton, surgeon in Bath, England, discovered that in persons poisoned by lead, there is very apt to be a blue line along the gums where they touch the teeth, and it is called the Burton line now. There is just enough of it here to swear by, and that is all. It is very faint, but still if I get the light right, it is distinct enough. You see it sometimes four or five times as strong as it is here. But get the light on it fairly, and you will see there is a faint blue line. There is no danger of confounding it with the black line which is often on the teeth of persons who do not use the tooth brush frequently, for the color is different, and then that black line is on the teeth; this is on the gums, and does not extend to the teeth. The explanation that is given of this brown line (whether it is correct or not I do not know) is that the lead received by absorption into the system, circulates with the blood, and that a certain portion of it, as decomposition takes place in articles that are used as food in the little space that lies between the gums and teeth, producing sulphureted hydrogen, is imprisoned as a sulphuret in this portion of flesh. It is gradually carried away when persons recover from the effects of the lead.

Explain this point a little more fully: you say you have this pain in the evening most, and in the night too. What kind of pain is it? "It comes right in the neck and head. I dare not touch the head. It goes clear up in the head, clear up in the center, as if thrusting my eyes and everything out of my head." Are there times when you are free from this pain? "Yes, a little while. Then I get double sighted. I see two tables, and if I cover one eye with a handkerchief I see only one." With one eye you see one object; with two, you see two when there is but one? "Yes." How long does that last? "Ten minutes. Then I see but one object where there is one, and no more."

The fact that this pain comes in the night, suggests another line of inquiry. There is a sort of perverse reminder of the time when one caught a disease in the results of its secondary symptoms at night. Have you ever had the bad disorder? "No, sir." Have you never had a sore on the penis? "No, sir, ex-

cept that I got one smashed." Have you another left? "Yes, sir." Then you are doubly armed. But you have never had any sore that you got from woman? "No, sir." Have you ever had an eruption or breaking out upon the body? "No, sir." How about sore throat? "Never had it." Any soreness along the shins? "No, sir."

I think then we may shut out syphilis. But there is another inquiry still; that is with respect to a malarial influence which would make this pain more severe at night than during the rest of the twenty-four hours. Have you had fever and ague? "I had it fourteen or fifteen years ago, but not since." Where do you live? "In South Third street, Brooklyn." Well, I think the malaria is pretty well cleared out from there. Malaria travels away from places that are paved and sewered. I have sometimes estimated that here in this city it is moved backwards about two streets a year, as building advances. Of course, it is irregular because the building is irregular. But in localities which are paved and sewered, it must be brought by the wind if it prevail.

I have asked myself the question a good many times, whether malaria is ever brought to New York by the Croton water. There are swamps up in the sources of this water that are very malarious, and if the water becomes contaminated by the poison, the question is to my mind unsolved whether it can get down here in the pipes. The water is very well aired before it is allowed to come down into the reservoir. Wherever possible, it is thrown into a jet in the air, as high as the source will allow.

But I think we will throw out malaria, and we are brought down to the question whether the lead in his system is not producing the neuralgic pain in his head. And the fact that he has troubled vision, and there are swellings associated with that pain, raises a question further, whether there is any change going on within the cranium. There are some physicians who would inquire whether this were not the result of pachymeningitis. I do not think that it is, and as we have found a sufficient cause in the lead, I think we may put him upon treatment for the lead poisoning. And he had better leave his occupation, if he can, for a time, and try to clear out the lead from the system.

It was perhaps, twenty or twenty-five years

ago that Melsen, of Brussels, discovered the fact that he could make double iodides of several of the metals, by the contact of the iodide of potassium, and the compound salt is very readily soluble. We have reason to suppose from some investigations that have been made here, that the iodide of potassium taken into the system of a man who has lead in his body, will dissolve it. The chief fact that has come to my knowledge in regard to it was the result of an examination made by a chemist named King, if I remember aright. He was attached to a New York Hospital. A man with this lead line, and other indications of lead poisoning, was admitted into the hospital, and his urine was saved until it accumulated to a gallon or two, and then testing it chemically, Mr. King found no evidences of lead in it. He was put upon the use of iodide of potassium, and in a week's time the same quantity of urine was examined, and examined in the same way, with a very decided result. That is, he found an appreciable quantity of lead in the water then, and so on from time to time as long as the man took iodide of potassium and any symptoms of poisoning existed. But, of course, it was at length exhausted. The fact that there was none that he could discover previous to the taking of the iodide of potassium, and that it was appreciable for a considerable time while he was taking it, is a confirmation, to a certain extent at any rate, of Melsen's doctrine. At any rate that is the treatment for poison by lead almost universally in all hospitals and private practice. I am watching a case in Bellevue Hospital now that has been five months under treatment, and only within the last two or three weeks has she been able to raise her hands much—she had the wrist drop.

I would advise, therefore, that this man take five grains of the iodide of potassium three times a day on an empty stomach. Take it three hours after eating, so that it will have an opportunity of being absorbed before the next meal comes. I give it on the empty stomach in that way, because I am afraid of the contact of starch with the iodide. It has a very decided reaction with iodine, and I do not know what the effect of it is upon the iodide of potassium. I have never tried it, but I have got in the habit of prescribing it, beginning three hours after a meal, when the stomach is about

empty, and my impression is that the effect of it is more marked than when given upon food, or given at the convenience of the patient.

**Mental Influence and General Management
Versus Specifics in the Treatment of
Pulmonary Phthisis.**

BY T. N. REYNOLDS, M. D.

SO much attention has been paid to climate and specific medication for consumptives that there seems a tendency to lose sight of other important features in the management.

As to specific medication, many remedies that are valuable in certain cases at certain times, are decidedly injurious in others. For instance, cod-liver oil that so often proves beneficial to patients who can assimilate it without injury to digestion, proves prejudicial to those who cannot digest it at all, and who, by its administration, are incapacitated for taking and digesting other articles of food.

So often does this occur that one is sometimes led to conclude that there is in the aggregate in the world more harm than good done by the indiscriminate use of the remedy.

So with the various astringent and sedative remedies for the cough; while they soothe a little and procure temporary rest in most instances, and are highly beneficial and necessary where there is either functional diarrhoea, or that from intra-intestinal complication with tubercle, prove decidedly injurious to those in whom there is habitual constipation and chronic gastric catarrh.

Neither is it in this connection clearly safe yet to forget everything else for the Salsbury plan.

To summarize with regard to medication, the better rule would seem to be to avoid too much reliance on specifics and attend almost wholly to restoration of the usually disordered digestion, assimilation and elimination, and to the removal, if possible, of any complicating malady.

As to specific climates, it is not always safe to rely on locality alone; but also in that connection on a proper adaptation of food, social enjoyment and occupation; for, in the majority of cases, the benefits derived from change of climate are largely due to the coincident change of scene, to change from in-door to out-door life, from sedentary to

more active habits, from brain-work, brain-worry and general nervous exhaustion to rest of the whole nervous system; and the forced diversion of the mind of the patient from the gravity of the affection.

Of course, probably no one supposes that all, and not many yet that even a majority of the cases of pulmonary phthisis are curable; but every one probably concedes that there is a sufficient number of cases so markedly amenable to treatment, and a sufficient number that are absolutely and permanently curable, to render the subject of advice and treatment for them still one of the worthiest in medicine.

No attempt is intended to be made here to discuss the pathology of phthisis; but that there is a catarrhal or intra-alveolar; and also a fibrous or inter-alveolar form of invasion, neither of which is tubercular in its origin, seems probable. If so, inasmuch as they are purely local, and dependent on no special dyscrasia, it seems reasonable to suppose that arrest and permanent cicatrization is as likely to take place here as in inflammatory and ulcerative processes elsewhere. With regard to the tubercular variety, if the deposit of tubercle in the lungs be large and rapid or exist elsewhere too, there is perhaps no hope from any treatment; but where the deposit is small and the individual of good vitality, arrest is possible and does occur. Hence only in rare cases should the disease be considered and dismissed as incurable, or at least as not greatly amenable to treatment. And one of the most important rules would seem to be to adopt no treatment or residence that will not be accompanied with the desired impression to be made upon the mind. For whatever may be the importance of the many other features in the management of curable cases, this transcends them all.

In advising people to leave home, it should be remembered that they differ widely in their natures and tastes. Those of romantic natures and more public social tastes are usually much benefited by change from the routine duties and associations of home, wholly apart from the specific quality of the new atmosphere. Of course, if there is no reasonable hope of improvement, it is a cruel thing to send patients away from comfortable homes; but there are many cases offering a fair prospect for treatment, where the propriety of

sending them to a distant health resort is also questionable. It will not usually do well to send patients of very domestic natures and habits to rough it alone among strangers in inferior hotels in strange places, no matter what the climate may be. They never acquire that very essential buoyancy of spirits and interest in life that comes of agreeable surroundings and familiar and congenial associations. Nor is it safe to send them away from cheerful companions to associate with persons, the majority of whom are afflicted with the same disease as themselves; nor beyond the reach of that intelligent medical advice so essential to regulate the mode of living, and that so frequently assists to give the desired confidence and hope in life.

Whether at home or abroad, then, the associations, amusements and occupation should be so adapted to and impressed upon the over-apprehensive mind as to leave no time for dread, and the patient kept, if possible, as absorbed in surroundings and oblivious of self as a little child.

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The Diaphragm in Parturition and Abdominal Surgery.

BY HAL C. WYMAN, M. D.

THE diaphragm constitutes the partition between the thoracic and abdominal cavities. The mechanism of its action is not so simple as we were formerly taught to believe. It is more than an organ of respiration increasing the vertical diameter of the chest. Respiration may go on independent of its contractions, as, witness the increased transverse diameter of the chest during inspiration following section of both phrenic nerves. It attaches to the pericardium and maintains the heart in the left thoracic cavity. It also attaches to the thoracic fascia which supports the pneumogastric and cardiac nerves. It aids the circulation of the blood.

Dr. Hilton, of London, explained the shortness of breath and absence of abdominal respiration in pericarditis, by assuming that the muscles of the diaphragm operated upon the pericardium and thoracic fascia as muscles operate upon joints; and that the phrenic nerves which supply the diaphragm with motion, also supply the pericardium with sensation; and, further, that the inflammation of the sensory periphery of the phrenic in the pericardium induces spasm of the diaphragm for the purpose of giving rest to

the pericardial joint, precisely as inflammation of the elbow-joint through the medium of the musculo-cutaneous nerve causes spasm of the flexor biceps cubiti muscle, and induces the forearm to assume a semiflexed position.

Dr. Hilton stated positively the relations of the contraction of the diaphragm to the pericardium and thoracic fascia, tracing the latter through the thorax up into the neck.

Dr. Forbes, in a paper before the College of Physicians of Philadelphia, evidently enlarges upon Dr. Hilton's idea, and traces the muscular fibers of the left leaflet of the diaphragm upward on the pericardium and thoracic fascia in the newborn in such a course, that with the descent of the diaphragm, during the first inspiration, the ductus arteriosus is compressed and the blood contained in the right side of the heart is compelled to pass through the capillaries of the lungs. Dr. Forbes states that he has observed "while opening the thorax in living dogs and cats under the influence of ether, for the purpose of examining the motions of the heart, that the vena cava inferior opening in the pericardium and into the right auricle is held in a fixed relation to the vertebral column. Observing this fact, he says, induced him to examine the vena cava inferior opening in the diaphragm, and to study its relation to the vertebral column in the human body."

This gentleman's idea is that that portion of the diaphragm which completes the vena cava opening is stationary and moves neither upward or downward from the inferior right anterior lateral margin of the ninth dorsal vertebra.

For the purpose of more fully understanding the influence of the movements of the diaphragm upon the pericardium and thoracic fascia, experiments were made in the physiological laboratory of Detroit Medical College. A dog of medium size was brought under the influence of ether, a bellows introduced into the trachea, the thorax and abdomen opened to display the movements of the diaphragm. The attachment of the thoracic fascia and pericardium to the diaphragm was easily defined. The ascending vena cava entering the pericardium and right auricle was distinctly seen, as were also the various openings in the dia-

phragm. While the respiration was carried on by the bellows there was, as Dr. Forbes states, "no movement upwards or downwards of the vena cava openings, and they maintained a fixed position in relation to the vertebra." But when the bellows were withdrawn and the want of oxygen stimulated the respiratory muscles, the central portion of the diaphragm and vena cava openings were observed to descend fully half an inch.

Dr. Forbes must have made his observations when the respiratory movements were performed artificially, and in that case the normal stimulus is not communicated to the diaphragm because atmospheric pressure is removed from the thorax, and the tissues and respiratory center receive their oxygen from the bellows, so that there is no cause for active movements in the muscles concerned in enlarging the cavity of the thorax. When bellows are used in maintaining respiration the occupation of the respiratory muscles is gone. Dr. Forbes, when he, as intimated, accidentally observed the fixed relation of the vena cava opening to the vertebra, was examining the motions of the heart. To study the motions of the heart in the open thorax, it is essential that the respiration be maintained by artificial means. Hence, we infer that the gentleman made his observations under circumstances that interfered with the perfect contraction of the diaphragm.

That something mechanical for closing the ductus arteriosus in the neonatus would be useful, is plain to anyone who has given the foetal circulation any thought.

It is difficult to understand how the strong current of blood from the right ventricle to the aorta in the foetus is suddenly diverted to the lungs. But, by showing that the contraction of the left side of the diaphragm is communicated to the thoracic fascia so as to compress the ductus arteriosus, the whole matter is made clear.

The thoracic fascia envelopes the heart and great vessels and maintains them in their position. It supports the various branches of the sympathetic nerves. The cardiac, inhibitory and accelerator nerves pass through it, and are by it prevented from pressure by the expanding lungs. The thoracic fascia is moved by the contraction of the diaphragm. It is only reasonable to suppose that a state of action or repose of the diaphragm might

influence the functions of the nerves that control the actions of the heart.

The phenomena of fatal peritonitis are not nowadays explained by the immense amount of peritoneal membrane involved in inflammation. The profession of to-day believes in the doctrine of peritonism—that the sympathetic system is functionally perverted; that the nervous impression, operating as a cause, is conveyed upwards in the normal course of the sympathetic impressions, and that the anti-peristalsis, vomiting, chill, and death are due to nervous perturbations. No great amount of intra-abdominal pressure is required to interfere with free and normal movements of the diaphragm. May not the uterus, distended with child, so interfere with the movements of the diaphragm that the relation of that organ to the thoracic fascia, and of the fascia to the cardiac nerves, be seriously impaired? May we not find a cause for sudden death of women just delivered, in the unimpeded descent of the diaphragm, making unusual traction upon the thoracic fascia and disturbing the functions of the cardiac nerves? Removal of ovarian tumors and aspirations of large quantities of fluid from the abdominal cavity are often followed by syncope and sometimes by unexpected death. Blows upon the epigastrium are sometimes fatal by shock of the solar plexus interfering with the action of the heart. Is it more than fair to assume that the diaphragm, during a violent contraction after a long period of repose, may shock the mysterious forces which control the actions of the heart and cause a sudden death? In parturition and the removal of large tumors from the abdomen, would it not be well to support the diaphragm and restore gradually the full sweep of its descent? Attention to this point may avert a fatal termination of an otherwise promising case.

Reports of Societies.

Michigan State Board of Health.

(Reported for the LANCET.)

THE regular quarterly meeting of this Board was held at its office in the State Capitol, at Lansing, on Tuesday, October 12, 1880. The following members were present during the meeting: Prof. E. A. Strong, of Grand Rapids; Hon. LeRoy Parker, of Flint;

Rev. D. C. Jacokes, of Pontiac; H. F. Lyster, M. D., of Detroit; J. H. Kellogg, M. D., of Battle Creek, and Henry B. Baker, M. D., Secretary.

IMPURE WATER.

Dr. Kellogg reported the completion of his paper on contamination of water by decaying wood, and mentioned in that connection some observations of his in regard to ice being contaminated by decaying sawdust and other impurities. He showed the fallacy of the popular belief that ice freezes pure, and said that it incloses all organic impurities that float. He described a water cooler which was designed to avoid contamination of the water by the ice, as would happen if the ice were placed directly in the water. A cylinder containing ice was placed in the center of the cooler allowing the water to come in contact with this cold cylinder without touching the ice. He also reported progress in studies relative to the work of the new committee to which he was appointed,—“the relations of preventable sickness to taxation.”

Dr. Baker made a report of the

WORK IN THE SECRETARY'S OFFICE

during the past quarter, which showed the distribution of a large number of annual reports and other documents to officers of local Boards of Health and other persons. Heretofore documents have usually been sent to the county clerks for distribution to local officers, but having seen that it might be as difficult for some persons to get them from the county clerks' offices as from Lansing, the secretary sent a circular letter to presidents of villages, asking them whether they wished them sent to county clerks, or if they would pay the express charges if sent to them direct. Of 102 replies, 73 desired the packages sent direct, 29 wished them sent to the county clerks, and of the latter, many now lived at or near county seats. Many of these officers expressed great interest in the information contained in the documents of the State Board. From evidence collected at Lansing, it would seem that the documents issued by the State Board of Health are in greater demand than any State documents, with the exception of the reports of the State Board of Agriculture and State Pomological Society.

REGULATION OF MEDICAL PRACTICE.

The Secretary stated that in response to communications relative to the proposed re-

gulation of medical practice, he had prepared a paper and a form for a bill. He submitted an outline of it to the Board. He had done this partly because he feared the State Board of Health would be made the examining board, and its usefulness for other important work impaired.

Later in the session, Dr. Lyster spoke on the same subject, and the following resolutions were adopted by the Board:

Resolved, That there should be required of all who are to begin the practice of medicine in this State an examination as to their qualifications.

Resolved, That such examinations by the State should be restricted to questions in demonstrable knowledge as distinguished from questions of mere opinion.

Resolved, That, as a public health measure, a committee of three be appointed to prepare and report at the next meeting of the Board a plan for furthering the objects stated in the preceding resolutions.

Drs. Lyster and Baker, and Jacokes were appointed such committee.

THE ANNUAL REPORT OF THE SECRETARY

relative to property received and disposed of during the fiscal year ending Sept. 30, 1880, showed the purchase and placing of meteorological instruments in different parts of the State, the addition of 414 books and pamphlets to the library of the Board, the receipt of weekly and monthly mortality statements from the principal cities in the United States and some foreign countries, the distribution of similar information respecting Lansing and the State; the detailed expenditures of the office, which are classified as follows:

Expenses of members attending meetings, \$205.65; instruments and books, \$147.11; paper, stationery, etc., \$192.51; postage for the office, \$581.90; postage by members, \$16.30; printing and binding, \$389.27; secretary, \$2,000; miscellaneous, (which includes telegrams, express, freight, etc.) \$120.39; making a total expenditure for the fiscal year, of \$3,653.13.

EXAMINATIONS IN SANITARY SCIENCE.

The Secretary reported that Dr. M. Veenbock, of Grand Rapids, and Henry B. Baker, M. D., of Lansing, the applicants for examination in Sanitary Science by this Board, July 14, both passed the examination, and the Board had since voted to grant them certificates. It was voted to publish the questions asked these candidates, in the Report of the Board for 1880. The Secretary

reported that in accordance with instructions from the Board, he had prepared a list of books valuable for reference and study by candidates for the examinations in Sanitary Science; and it was voted to print the list in the Annual Report for 1880.

OZONE.

An interesting paper by J. Mulvany, M. D., of the British Navy, giving the results of ozone observations conducted in various parts of the world, was presented, accepted with thanks, and ordered published in the Annual Report. The paper was read before the Meteorological Society, London, Eng., but not yet published.

REMOVAL OF A SMALL-POX CORPSE.

The Secretary presented a letter describing the method of re-interment, under the direction of the health officer of Lansing, of the body of a person who had died of small-pox.

SANITARY CONVENTIONS.

It was voted to hold two Sanitary Conventions for the reading of papers, discussion of sanitary topics, and the exhibition of sanitary appliances, during the coming winter. Rev. Dr. Jacokes and Dr. Baker were appointed a committee to receive invitations and make arrangements for the conventions. Persons desiring a convention at any place, may correspond with either member of the above committee.

Prof. Strong said the convention at Grand Rapids last winter had greatly stimulated public health work in that city.

The Secretary presented an invitation to the international medical congress to be held in London, August, 1881.

Dr. Jacokes presented a drawing and description of plan for introducing fresh air to be warmed by a coal stove in the room.

The Secretary was directed to investigate the hog cholera now prevailing in the southwestern part of this State, and if possible ascertain if any relation existed between that and any sickness in the human species.

Prof. Strong, the new member, was assigned to work on the committee on the "relations of schools to health," and on the "relations of climate to health."

Dr. Baker presented specimens of pine infected with a fungus which had completely destroyed the floors of several rooms, constructed of that wood, in a new building. The fungus seemed to grow most where the

floor was covered, as with oil-cloth or by boxes resting on the floor; and in one room the decayed floor corresponded with the portion not exposed to light, though that case may be explained by a greater amount of moisture in that part of the room, because of dampness underneath. The odor in the room was that mouldy or musty odor not infrequently met with in close rooms. It caused frontal headache, and a person engaged in repairing the floor had spells of sneezing on two occasions some months apart while thus employed.

The Secretary presented communications from E. P. Christian, M. D., of Wyandotte, relative to diphtheria, etc., and he was instructed to use them in the Annual Report.

A design for an official seal for the Board was presented by Dr. Baker, and adopted.

Dr. Henry B. Baker was appointed a delegate to the meeting of the American Public Health Association at New Orleans in Dec.

Auditing of bills and other routine work was accomplished during the day. The next regular meeting of the Board will be on January 11, 1881.

The Fifth Annual Meeting of the American Gynecological Society.

(Abstracted from the Cincinnati *Lancet and Clinic* of September 4, 11 and 18, 1880.)

The fifth annual session of the American Gynecological Association began in Cincinnati, September 1, 1880. The meeting was called to order by the President, Dr. J. Marion Sims.

Dr. Thad. A. Reamy delivered the address of welcome, in which he congratulated the Society on the value of its work already done, and predicted a more brilliant future for the Society, and gave the members of the Society a most hearty welcome to the city.

The first paper read was entitled "What is the Proper Field for Battey's Operation?" by the originator. Dr. Battey said: "When I announced this operation to the profession in 1872, I foresaw that the field of its operation must be very restricted; for the honor of the profession and in the interest of humanity I had fully expected the field to be more restricted than it has been. There are some things connected with its application from which all the instincts of a manly nature recoil with the utmost repugnance. It was my expectation that when the profes-

sion would concede me ground, although I felt absolutely sure it would win a certain restricted ground, it would be conceded to me grudgingly. I took the position from the first that this never would be an operation of election."

Nothing but a sense of duty could tempt him to extirpate the ovaries of a female to hasten the menopause. A physician is morally bound not to choose this operation for any other expedient, simply for the glory of the operation. The case ought to be narrowed down to this operation as the last expedient.

The only cases that should be submitted to this operation are those that are absolutely incurable by other means of human invention. These, and these only, may be made subjects of Battey's operation.

The doctor asks himself these questions: "Is it a mortal case?" "Is it curable by any other known resource of the art?" "Is it curable by a change of life?" If these questions can be answered in the proper way, then the operation is a proper one for that particular patient.

The first class of cases that are proper subjects for this operation are those who unfortunately have no uterus and still have a more or less regular ovulation and violent nervousness. There is no means of supplying a uterus, consequently it is best to remove the ovaries and put a stop to the ovulation.

A second class of cases may be of the kind, of which a case is reported, where there is complete occlusion of the vaginal and uterine canals. Such may be completely relieved by an operation of the nature of Battey's operation.

A third class of cases are those of menstrual or ovarian mania, where, perhaps, the reason may be dethroned by the arrest—partially or totally—of the menstrual function, and in case of partial arrest of the function, accompanied with great pain. These cases have violent perturbations of the vascular and nervous systems and are absolutely incurable by any other known means or resource of art.

Examination of the ovaries after removal shows that there are profound changes in their structure which medicine cannot reach.

A fourth class of cases are those who are subject to ovarian epilepsy—a numerous

class. There is a marked difference between ovarian epilepsy and ordinary epilepsy. It is necessary to know absolutely that the case is one of ovarian epilepsy. A mere assumption is not enough.

A fifth class are those unfortunates who have a persistent, pernicious amenorrhœa. The condition of the patient suffering from this disorder is such as to justify the removal of the ovaries. "It cures the patient, and nothing else will." While, perhaps, it would be too much to say that under any and all circumstances this operation is a cure for amenorrhœa, the doctor does say that there are some aggravated cases of amenorrhœa that are incurable by any other resource and are curable by Battey's operation.

A sixth class of cases are those which have been subjected to this operation by Hegar, of Germany, and by some operators in this country, viz., cases of interstitial fibroids of the uterus—cases not amenable to the ordinary gynecological treatment and which cannot be safely operated on in the usual manner for the removal of uterine fibroids. These patients are constantly subjected to the danger of death from exhausting hemorrhages. Then the climacteric may and ought to be induced by the removal of the ovaries—the tumor will shrink and become less and the patient will at least become secure from sudden death by such an accident as a uterine hemorrhage. These patients are always, or, at least, nearly always, barren, consequently, but little objection could be urged against removal of the ovaries.

A seventh class of cases that may be benefited by Battey's operation are those who have certain incurable flexions of the uterus, which, by their presence, induce violent vascular and nervous prostration in the system. If such flexions are incurable by other resources known to gynecologists, then the extirpation of the ovaries is justifiable.

The eighth and last class of cases mentioned by Dr. Battey as fit for his operation is that unfortunate class who, from contracted pelvis, have to undergo the operation of abdominal section for removal of a fœtus. The doctor thinks that during the child-bearing period we have no right to subject a woman who has once undergone the Cæsarian section to a similar danger under the same circumstances. In such cases Battey's opera-

tion, done at the same time as the Cæsarian section, would bring immunity to the patient from a similar risk and would be justifiable.

Dr. G. J. Englemann, of St. Louis, reported one case of Battey's operation for the relief of anterior displacement of the ovary. This displacement of the ovary is a rare one and simulates internal inguinal hernia. In this case the disease had existed only a few years, and mental alienation, in the form of melancholia, was but beginning to be developed. Dr. Englemann also reported another case of anterior displacement of the ovary in an older person, on whom no operation was performed because of the near approach of the menopause, and because the mental alienation—melancholia—had so far advanced as to render it doubtful whether any operative procedure would benefit the patient. In this case the enlarged ovary had repeatedly been mistaken for a hernia, and a truss had been applied—of course to the great annoyance and discomfort of the patient.

Both cases have a history of a fall from a height, and both suffered greatly at the monthly periods. The case operated upon improved both in body and mind, the operation having established the menopause and relieved—it is thought permanently—the melancholia.

Dr. Battey, in discussing Dr. Englemann's paper, said that in every case in which he had removed both ovaries the menopause had resulted. If part of an ovary is left, the menses continue to some extent.

Dr. H. P. C. Wilson, of Baltimore, read a paper entitled: "Case of Ovariectomy Complicated with Pregnancy."

Any physician may be called upon at any moment to decide the question, "What shall be done with a large ovarian tumor complicating pregnancy?" Dr. Wilson was called upon to decide this question for himself, and decided to remove the tumor rather than risk the customary tapping that is recommended in such cases. He removed the ovarian tumor and saved the mother and also the child at term. The best time to make the operation seems to be as near the fourth month of pregnancy as possible—at any rate, before the sixth month—and if properly done insures greater safety to mother and child than any other plan of procedure.

Other gentlemen favored producing abortion first and then operating for the removal of the ovarian tumor.

Dr. A. Reeves Jackson, of Chicago, read a paper entitled: "Uterine Massage as a Means of Treating certain forms of Enlargement," in which he advocated manipulating the uterus through the abdominal walls to reduce the size, literally squeezing the uterus back to place.

At the second session of the Society, Dr. R. S. Sutton, of Pittsburg, Pa., read a paper entitled: "A Case of Cataleptic Convulsions Cured by Trachelorrhaphy."

Mrs. C., aged 38, had borne four children. She had never miscarried. The last labor occurred in August, 1872. None of her labors could be termed preternatural, but her disease began after a laceration of the cervix uteri. Prior to marriage she was a vigorous girl. Shortly after marriage she became pregnant. Seven hours after labor began she was delivered with forceps. Her lying-in period was painful and protracted. Soreness persisted in the abdominal and pelvic regions a long time. Her second labor was easy and rapid. Eight months after the second labor, after returning from an evening drive, she was seized with a convulsion for the first time. A third pregnancy occurred at the end of a year from the second labor, when she had occasional convulsions until the fourth month, after which time she had them frequently. She was confined at full term, but had frightful convulsions at the time of labor.

It was not until after the last labor that this patient was seen by Dr. Sutton. An examination revealed a slight laceration of the perineum, and the cervix uteri was found to be torn. A small anal fissure was found, but was not thought to complicate matters much. After this the patient was subjected to local and general treatment, drugs *ad nauseam*, change of climate, etc., for five years. At this time it became known that any attempt at sexual intercourse was followed by convulsions; another year passed, when it was at last decided to restore the cervix uteri. This done, the convulsions ceased as if by magic. The convulsions had been caused by the sensitiveness of the bottom of the laceration of the cervix uteri. This lady recovered her health at last.

Dr. W. H. Byford, of Chicago, read a paper entitled "Extirpation of Encephaloid Kidney."

Although the subject of tumor of the kidney is not strictly one belonging to gynecol-

ogy, yet it is interesting as regards the differential diagnosis. The patient, on whom Dr. Byford operated for removal of this encephaloid kidney, was thirty-nine years of age, and had been married eighteen years. She had borne six children, the youngest of whom was eighteen months old. Up to the birth of the last child she had enjoyed good health. Since that time she had suffered nervous symptoms, had had probably hysteropilepsy, and severe headaches were of common occurrence. She was much emaciated and debilitated. The abdomen was greatly enlarged and there was fluctuation throughout. The urine was normal. By pressing the hand well down into the abdomen a large irregular solid tumor was easily discovered, extending decidedly beyond the median line, and seemed to resemble in shape a foetus in its normal condition. The liver and spleen occupied normal positions. The question at this point lay between extra-uterine pregnancy and tumor of the kidney. At a day appointed for an exploration, under anti-septic precautions, at first a half pint of yellow fluid was drawn off, then an incision in the same place was made one and one-half inches long, and $1\frac{1}{8}$ pounds of fluid was evacuated and the abdominal wall collapsed. The tumor could now be felt easily movable and nodulated, and was suspected as encephaloid kidney. The tumor was removed and the fluid absorbed by fine carbolized sponge and removed. After ligation of the pedicle the wound was closed with silk sutures. The tumor was examined and found to be the right kidney degenerated into an encephaloid mass, which weighed four and one-half pounds.

The patient was discharged from the hospital—she was treated at the woman's hospital in Chicago—in about six weeks in good spirits and improved health, and has since become rugged and in perfect health. A point in diagnosis in this case is the great influence of tumor upon peritoneal and general health. The dropsy did not extend to the connective tissue elsewhere. This pathological dropsy must be a condition that can only be regarded as indicating the growth and stage of the disease.

The most interesting feature of this case is the renewal of general good health after the removal of such an encephaloid mass from the system.

Dr. H. F. Campbell, of Augusta, Ga., read a paper entitled "The Value of Quinine in Gynecic and Obstetric practice."

He confined his remarks to the value of quinine in the malarial conditions complicating pregnancy, so far as his time allowed to read his paper.

He disclaimed against the idea that the drug would induce abortion. On the contrary, it prevented it. If, as frequently happens, miscarriages occur in malarious countries, they occur for the want of quinine rather than because of its reasonable use.

In the puerperal state this drug is an important adjuvant, and in malarious regions cannot be dispensed with as a means of acting against the after effects of parturition.

Dr. Theophilus Parvin read a paper entitled "Secondary Puerperal Hemorrhage."

He thought that the mind influenced the body to such an extent as to induce secondary puerperal hemorrhage, *i. e.*, hemorrhage occurring after not less than six hours nor more than thirty days after delivery. The most commonly exercised special emotion is grief.

In the discussion of Dr. Parvin's paper it appeared that those who engaged in the discussion nearly all agreed that malarial poisoning was an important cause of secondary puerperal hemorrhage.

(The abstract of Dr. Parvin's paper given is too short to enable us to present anything of its substance.—ED.)

Dr. J. Marion Sims, the president, delivered the Fifth Annual Address.

In it he congratulated the society upon the success of its labors for the last four years. The transactions of the society are recognized as authority the world over.

But the Dr. had a bone to pick with the organic law of the society, and did it by complaining that the limited membership was too small and the terms of admission too strict. The limit of membership should be enlarged and the terms of admission should be such that they might include all the able workers in that branch of the medical and surgical art.

On the third day of the meeting, Dr. Geo. J. Englemann, of St. Louis, read a paper entitled "The Instinctive (or natural) and Philosophical position of Woman in Labor."

In 1877, Dr. Englemann had his interest aroused as to the natural or instinctive posi-

tion a woman would assume in labor, by hearing of a piece of ancient Peruvian pottery that was in the possession of Dr. Coates, of Chester, Pa.

The sum and substance of the paper seems to be, so far as the abstract shows, that the American and English obstetric positions are both wrong and we must go back to the semi-recumbent and inclined positions, if not to the obstetric chair.

(If we could see the whole paper in print, we should be pleased to try to do it justice.—Ed.)

Dr. W. T. Howard, of Baltimore, read a paper entitled "Three fatal cases of Rupture of the Uterus with Laparotomy."

Rupture of the uterus is usually regarded as one of the most fatal accidents attending upon parturition. The treatment by laparotomy has been more successful than that by any other mode of procedure. By this method the death rate varies from twenty-four to fifty per cent.

Dr. Howard's first case occurred in 1868. The patient was 37 years of age and had previously given birth to seven children without any unusual accidents. She was in excellent health when this, her eighth labor, began. After labor had progressed three or four hours the pain became very great. During a violent pain, suddenly something seemed to give way and the labor pains at once ceased. Rupture of the uterus was diagnosed and laparotomy was determined upon, but owing to distance the operation was not performed until eight hours after the rupture occurred. The usual Cæsarian operation was performed and the fœtus quickly removed, but the patient died on the seventh day.

(It is not mentioned whether the fœtus was alive, but we presume that it was not.—Ed.)

The second and third cases reported by Dr. Howard were similar to the first and all terminated fatally.

(Not very encouraging to the doctor.—Ed.)

Dr. J. R. Chadwick, of Boston, read a paper entitled "The Hot Rectal Douche."

The usual reason for using this douche has been to remove fecal accumulations, but lately the use of the hot douche has been more variable. One case was cited where it was used to cure a diarrhœa that seemed to depend upon congestion of the rectum.

Again, pelvic inflammations may be better treated by the hot rectal douche than by the vaginal douche, because you can fill the bowel and thus surround the whole mass of pelvic organs and the peritoneum adjacent and surrounding them. The water should be as hot as the hand can bear, if immersed in it. While using the douche, pass the finger into the vagina, palm backward. The minute the lower pouch begins to fill, pause a moment without withdrawing the nozzle. In this way from one to four pints may be introduced without exciting peristaltic action. The patient should be quiet for half an hour. The douche is recommended principally for a condition of inflammation of the large intestines or rectum, and for a condition of the pelvic organs characterized by painful defecation or burning sensations about the ovaries.

(During the discussion it was claimed that the Dr. expected too much for his hot douche, but Dr. Reamy's assertion that water would not go beyond the ileo-cæcal valve except it goes beyond it by entering the blood, will hardly bear the test of experience.—Ed.)

Dr. Thad. A Reamy, of Cincinnati, read, by abstract, a paper entitled "Ulceration of the Cervix Uteri."

Out of a total of 8,000 women examined by himself, excluding syphilitic and cancerous affections, there were found but nineteen cases of true ulceration. Of course much depends upon the definition of the term ulceration. Dr. Reamy takes as his standard the definition of Paget and Billroth.

After closing remarks by the President, Dr. J. Marion Sims, and remarks by the President elect, Dr. W. H. Byford, of Chicago, the Society adjourned to meet in New York on the third Wednesday in September, 1881.

The Detroit Lancet.

LEARTUS CONNOR, A. M., M. D., EDITOR.

The Relations of the Medical Profession to Manufacturing Pharmacists.

IN the heat of the discussion of the relations of the profession to dispensing pharmacists, the larger establishments of the manufacturing chemists are often overlooked. Yet the close observer has not failed to observe that year by year these large concerns

come more and more close to the profession. Notoriously the dispensing pharmacists are devoting an increasing amount of their time, capital and influence to the sale of soda water, mineral waters, ginger ale, tobacco, cigars, wine, beer, patent medicines of all sorts. Last but not least, not an inconsiderable amount of energy is confessedly devoted to prescribing for all who come to their places of business. Of course in these regards it will not be claimed that the dispensing pharmacist is the ally or the servant of the medical profession. Indeed, we are told that in New York city, the time is not far distant, if not at hand, when the establishments of the so-called dispensing pharmacists will take the place of the doctors to a very large degree. We are well aware that there are some dispensing pharmacists to whom the foregoing will not apply; but we are assured that in the main it fairly represents the facts. Meantime a small number of large manufacturing establishments have grown up devoting themselves to the study of the wants of the physicians, and to supply the same. As the type of these establishments, may be mentioned that of Dr. Squibb. In these it will be noticed that every effort is made to serve the physician by meeting his wants. Patent medicines, proprietary articles, etc., are neither made nor vended by them; nor do they vend tobacco, cigars, whisky, wine, etc. With the aid of the best practical talent they can procure, they prepare the chemicals and medicinal preparations that the profession desire. By their combination of abundant capital, the best business talent and experts in every department of manufacture, they have been able to render medicinal preparations at once uniform in quality, elegant and convenient in form, and moderate in price. Further, they have been and are ready to spend time and money without stint in the search for new drugs, and in devising new and more desirable forms for their exhibition. We are sure that all who have given the matter sufficient attention to reach the real facts in the case, will agree in the statement that the manufacturing pharmacists are the closest allies of the medical profession, and that the interests of the two are in perfect harmony; that the former are content to be permitted to serve the profession in any manner that the profession may direct in regard to the procuring and preparation of the several articles of the materia

medica. Further, they are on the look out for any mineral or vegetable substance which may be of interest or value to the physician. It is not unusual for these large establishments to send agents thousands of miles to investigate the nature and to obtain a supply of some plant that some physician thinks worthy of a careful study. We are aware that some look with suspicion upon this enterprise in the introduction of new remedies.

But it seems to us that it is strictly in the interests of the wide-awake physician. Unable ourselves to obtain a supply of new drugs at prices which admit of their general use, if found good, shall we not accept the services of those who obtain those drugs for us? If any particular firms are dishonest or dishonest, or incompetent in their attempts to render this service, let the facts be made known. But when in these respects the reputation of these firms is unimpeachable, it seems to us the height of folly to refuse such excellent and efficient aid; aid in a matter that we cannot do ourselves or obtain any one else to do for us. For instance, take the introduction of new vegetable remedies: Some doctor in Mexico or South America, or Australia or the West Indies, or elsewhere, observes certain virtues of a medicinal character in a certain plant; he sends a sample of the drug to some medical friend interested in the study of the action of remedies—say Dr. Sidney Ringer, of England. Dr. Ringer investigates the plant, and thinks he finds that it possesses virtues of a medical character of great value to the profession. But an obstacle to its general use lies in its great cost. Here our enterprising manufacturing pharmacist steps in to our aid. He at once sends an agent to the land in which the plant grows, instructing him to learn all that is known respecting the plant; its abundance, its mode of growth, its properties when fresh, etc. Above all he is to obtain an ample supply of the plant and ship it to the laboratory. On its arrival it is at once studied by a chemist to determine its chemical properties, and by a practical pharmacist to determine the best methods of extracting its virtues and the most desirable modes of administering it as a medicine. Having determined these points, the firm issues a circular to the profession recounting the foregoing facts, and inviting such as desire a remedy to meet the indications for which physicians have

found this valuable, to try the preparation advertised. Many accept the invitation, and from their experience are able to reject or accept the statements of the first observers. If the new drug possesses positive merit it takes its place in the recognized materia medica. If it has no such merit it soon falls into oblivion. In either case the manufacturing pharmacist is profited only as he renders positive service to the physician. For ourselves, we are glad that the profession has such capable assistants. It is only by this aid that we can ever hope to obtain from the vegetable and mineral kingdoms the agents that will best suit us in our efforts to meet every indication offered by the multiform disorders of the human body.

As regards the work of any particular firm, it is entirely proper that the profession should watch it with the most scrupulous care, and make it clearly understood that its patronage of that firm, as of all firms, rests upon the capacity of the firm to do its work well, and upon the practical evidence that it constantly exercises this capacity.

What is the Standard by which Medical Colleges are to be Judged ?

It is a curious fact that almost every individual doctor to whom we have propounded the above question has answered it in a very different manner. The standards propounded by the medical editors are as diverse as the editors themselves. Nor do medical societies, state or local, agree better. Then from year to year these change their supposed standards. Finally, the standards of the colleges are as indefinite as a piece of chalk. The confusion becomes labyrinthine when we try to put all these standards together and deduce therefrom one universal standard which shall satisfy all parties. The regular sessions of the colleges have begun. What does the medical press say respecting them? Does it dwell upon the matriculation examinations, their extent and the thoroughness with which they were conducted at the particular colleges with which each editor has personal knowledge? Does it exhibit a fair statement of the actual requirements made of each student? Does it show the methods of teaching? The materials for teaching as regards laboratories, hospital beds, and out door clinical material? What does it tell us as to the proportion of students

to the number of teachers? What is absolutely required of each student in practical anatomy, in practical physiology, in practical pharmacy, and in practical chemistry? We have carefully studied recent issues of the medical press to learn just what it would say on these and similar questions. But we can scarcely find anything even indirectly related to them. What we do find almost invariably is something like the following: "The indications are strong that the number of students during the coming term will be larger than ever before. The class now assembled numbers hundreds, and is receiving daily additions, etc., etc." Thus it appears that the standard by which the medical press judge the medical colleges, is the size of their classes. Nor is the standard greatly different among the individual members of the rank and file of the profession. All this is of interest as showing the real meaning of the universal demand for reform in medical education. The fact of the matter is that a few really believe that the time has come to radically change both the method and means of medical teaching. In this belief they have endeavored to create a new public and professional sentiment on the subject. So far have they succeeded, that the cry medical reform has become popular. Hence to be with the crowd each tries to cry the loudest. But from the facts alluded to and others of the same nature that are apparent to every careful observer, it is clear that with most reform is simply and solely talk with the mouth; they desire to receive the benefits of talking reform and living anti-reform.

Nor is this state of things without its benefits. By even insincere cases of reform, the subject will be brought to the consideration of some who will be sincere, and do real work for reform. Then more or less of the agitation will extend outside of the profession and awaken thought among educators. And among intelligent people, by one or all of these means, we may reasonably hope that a correct notion of a true standard may finally be developed in the minds of those responsible for the education of the recruits to the medical profession. For ourselves we have no doubt that such a standard will include at least the following elements:

(1) A matriculation examination at least equal to the entrance examination of Yale College.

(2) An obligatory attendance upon three courses of college instruction, each course being at least nine months long.

(3) A grading of the course of study, so that the student would be compelled to use all his powers all of the time to the very best advantage. The study of anatomy from book, from lecture, and from recitations, simultaneously with actual dissection of the cadaver; the study of physiology from book, from lecture, and from recitations, simultaneously with actual work in the physiological laboratory; the study of chemistry from book, from lecture, and from recitations, simultaneously with actual work in the chemical laboratory; the study of *materia medica* by lecture, by book, and by recitation, simultaneously with actual work in the pharmacy laboratory; the study of pathology from book, and lecture, and recitation, simultaneously with practical work in the pathological laboratory. In like manner the study of surgery, of diseases of each special organ, and of the entire human body should combine study from book, from lecture, and from recitation, and from living examples. We mean study by the student as well as by the teacher. It will be seen that such a grading of study demands the constant exercise of all the special and general senses simultaneously, with the exercise of the several powers of the mind. That this exercise begins with simple subjects increasing their complexity as rapidly as the student is able to master them to advantage.

The difficulties in the way of adopting such a standard are manifold, as we have pointed out on former occasions. A few schools have at the present time nearly overcome them. Now, if the profession desires the extension of such a standard to all colleges, it must by word and deed support the colleges that have truly made this standard a practical reality.

What can Certainly be Accomplished in Medical Legislation in Michigan this Coming Winter.

Doubtless various answers would be made to the above inquiry if successively put to the several members of our profession in Michigan. At this time we desire to call attention to one of these only, viz: the compulsory registration of each practitioner in the county clerk's office of each county. The proposal to require the above registration

would appeal to the good sense of every member of the legislature. Who could object to the law requiring every one who practised medicine in Michigan to publicly record the name of the institution at which he graduated, and the year and day on which he received his diploma? The advantages of such registration are obvious on a moment's reflection. From it the people would know who, in any given community, possessed the first requisite of a doctor, viz: a reasonable preparation by adequate study. They would be gradually led to think that it would be better if those who were unable to show that they had made such reasonable preparation, were told by law that they had better either change their business, or emigrate to some other State. Then the people would be ready to enact a law forbidding any one to practice medicine, without the possession of definite qualifications. It seems to us that the foregoing considerations are of sufficient moment to call for thoughtful deliberation—some have suggested that our State Board of Health be made an examining board like that in Illinois. Most earnestly we enter our protest against any such arrangement. Our board of health, as now constituted, is doing excellent work of which our people may well be proud. But its capacity for work is limited, and this limit it has reached. If it were required to undertake the duties of a medical examining board it would most signally fail. In proof of this we have only to point to the record of the Illinois State Board of Health. It has done good service as an examining board, but as a board of health, it has no record at all worth speaking of. Surely this experience should not be passed over in silence.

Memoranda.

Henry C. Lea's Son & Co. are issuing certain of their standard publications in half Russia at a price little in advance of sheep. They hope in this way to please the eye as well as the minds of practitioners by filling their libraries with elegantly bound books.

We have received a copy of Lindsay & Blakiston's physicians visiting list for 1881. For three years this list has been before the profession. Its posological table gives the doses of medicines in both apothecaries and metric system of weights and measures; according to its size its price varies from one dollar to three dollars.

The ordinary mortality rate of New York City is from 25 to 28 per 1,000. After June 12 it began to rise. In the week ending June 26 it was 44.97, while for the week ending July 3 it was 56.20 per 1,000.

It is stated that the Homœopathic Medical College of New York will furnish the endorsement of diplomas required by the New Medical Law of that State for nothing; the Law itself permits a charge of twenty dollars. A correspondent of the *Chicago Medical Journal* says that the University Medical College of New York is the only one of the three medical colleges of that city that has shown no regard to the now general demand for longer annual courses, and more of them. It sticks to the old system, and, perhaps deservedly, has the reputation of sending out the biggest and worst medical classes every year.

The *Obstetric Gazette* says that Rowell's American Newspaper Directory puts the circulation of the *Gazette* as under five hundred. Yet at Rowell & Co.'s request they were notified that the regular circulation of the *Gazette* was three times that amount; but then it did not advertise with the Rowell's.

A rich man upon whom a surgeon had performed a serious operation, received from the latter a demand for an enormous sum. "You ought to have warned me," said the sufferer, "that your way of carrying on your trade is to demand your money or your life."

At its late meeting the Detroit Medical and Library Association elected as president for the coming year Dr. T. A. McGraw, and as secretary Dr. W. Chaney. The prospects are said to be good for an excellent year's work.

A Swiss local magistrate has decided that the crime of infanticide shall be punished with death only when the victim is a child born in wedlock. Illegitimate children can be killed with impunity, so far as the influence of this magistrate is concerned.

Dr. Rutherford, of the Insane Asylum at Woodilee, Scotland, reports that, by occupying the patients fully, he has been able to carry out the open-door system of treatment. He finds that by the diminution of apparent restrictions upon liberty, greater quietness and contentment are secured, and recovery promoted.

The Philadelphia Medical and Surgical *Reporter* indulges in a strain of righteous rebuke of the managers of the forthcoming medical congress, which meets at London, Eng., next August, because they have decided to admit only men—small-minded, illiberal impertinence, etc.

Statistics show that 25,906 arrests were made in Brooklyn, N.Y., last year. Of these one was a clergyman, one an editor, eight were artists, six actors, two custom house officers, forty-seven lawyers, and eleven undertakers; but no doctor in the list.

The eighth annual meeting of the American Public Health Association will be held in New Orleans from December 7th to the 10th inclusive. The meeting promises to be one of more than ordinary interest.

The Boston *Herald* has exposed a bogus diploma mill. The affair was known as the New England University of Arts and Sciences. Its headman was Dr. Henry C. Stickney; he had lived at Manchester, New Haven, Stowe, Vt., and Boston, Mass.; the diplomas were all dated at these places. The act incorporating the university in New Hampshire was passed in 1875, but was repealed the next year. The diplomas were signed by William Wancock, D.D., president; D. M. Smith, M. D., secretary; H. C. Stickney, M. D., E. Edgeworth, M. D., John Thompson, LL.D., A. Simoons, M. A., and H. E. Hasgood, M. D. It is supposed that about one hundred doctors have diplomas from this mill; the price of the diplomas was from \$100 to \$145.

The four American claimants of the discovery of anæsthesia were Jackson, Long, Morton, and Wells. The fate of these men was quite unfortunate. Long died in 1878, very little known and a poor man. Morton, having been reduced to poverty during the twelve years in which he tried to obtain from Congress and the courts a recognition of his rights, died suddenly in New York City of cerebral congestion, brought on by reading a work attacking his claims. Wells' mind failed in the fierce controversy, and after his arrest in New York for throwing vitriol on women's clothing, he destroyed himself. Jackson died August 30, after seven years' illness, during which his mind was clouded between agitation and disappointment.

Postage stamp mucilage is composed of gum dextrin two parts, water five parts, acetic acid one part; dissolve by aid of heat and add one part of spirits of wine.

The *Medical Library Journal* is the title of a new medical monthly issued from Boston, Mass. The number before us contains twelve double column pages; price is one dollar and twenty-five cents per annum. It is devoted exclusively to the discussion of medical books and other publications. It will prove of special interest to such as desire to keep track of all medical issues.

Dr. Joll, (*British Medical Journal*, Sept. 25, 1880,) states that he has found a condition of complete flaccidity of the iris a reliable sign of real death. This can be shown by synchronous compression of the globe of the eye in two opposite directions, when the pupil will readily assume an oval or irregular shape. In cases of apparent death no ordinary amount of compression in this manner will have the least effect in altering the shape of the pupil.

The *British Medical Journal*, Sept. 25, 1880, alludes to a case in which the temperature phenomena surpass those of Mr. Teal's case. The patient is a woman who has been under the notice of the entire staff of the Adelaide Hospital, and is now in Sir Patrick Dunn's Hospital, Dublin; the highest temperature reported is 131° Fah. It is said that the most stringent measures have been adopted to avoid all sources of error. We shall look with interest for fuller reports of the case.

Dr. Reeve says that the tone of medical journals as they record the deaths from ether, the current of professional opinion, the abandonment of chloroform for ether by surgeons almost everywhere, show that from facts as well as figures, the profession has learned that ether is a far safer anæsthetic than chloroform.

Dr. Cowling (*Louisville Medical News*) says that the scale of safety is in favor of ether, so far as general opinion is concerned, but he does not think it is so vastly in its favor as its advocates would make out. That ether is the innocent agent claimed by its enthusiasts is absurd. The general abandonment of chloroform is theoretical. Men are frightened by it and would like to turn for safety elsewhere. They fear chloroform to be sure, but ether only less, and with the

celerity and certainty and convenience so vastly in favor of the former, whatever may be the current of professional opinion, there is no doubt that professional practice is going to stick to the easier ways.

Of Rowell's American Newspaper Directory for 1880 the Philadelphia *Med. Surg. Reporter* says it is incorrect in so far as the circulation of the *Reporter* is concerned. Further, the *Reporter* says that, as requested, it sent to Messrs. Rowell & Co. a statement, sworn to by the printer, giving the exact circulation of the *Reporter*. This statement was suppressed and a decidedly lower one entered. Other parties claim that they have been unfairly dealt with. As these parties did not accompany their statement with an advertisement, they are unable to say whether the error occurred through mistake or other reasons.

Dr. Todd, of St. Louis, says that when a patient comes to him with a noise in his ear, he tells him that the noise is likely to die with him.

Buchanan is said to have confessed that over 40,000 bogus diplomas had been issued from his two institutions. Think of 40,000 doctors resting their claims to public confidence upon a lie! With these facts before them, are the people of Michigan and other States still unwilling to enact a law protecting themselves from such frauds?

The English papers record the death of a faster. He seems to have combined a profound belief in Tanner's doctrines with a firm faith in the capability of the disembodied spirits to administer supernatural nourishment to any fasting man who had sufficient faith in them. Acting upon these convictions, he rejected all food for an indefinite number of days. When urged by his landlady and other friends to swallow something more substantial than spring water, he indignantly told them to mind their own business, the spirits would keep him alive. Still, he died like all similar fools. The jury which sat upon his wasted remains gave the following verdict, viz: "The deceased died from inanition from want of food, and it was caused by misadventure."

The late meeting of the American Pharmaceutical Association, at Saratoga, was the most successful ever held by that body. A large attendance, important business, an un-

usual number of new members, and a fine exhibition of chemical and pharmaceutical wares, all contributed to the success. Mr. James T. Shinn, of Philadelphia, was elected President. The next meeting is to be held at Kansas City, Mo.

The *Specialist and Intelligencer* is the title of a new medical monthly, published by Presley Blakiston, at 1012 Walnut street, Philadelphia. It is edited by C. W. Dulles, M. D. It contains twelve double-column pages. The author intends to devote it to practical matters relating to diseases of the eye, ear, throat and skin, and to venereal diseases. Price, \$1.50 per annum. Confessedly it is an effort to make the exact knowledge of the specialist available to the general practitioner. The present number is very interesting.

On the 30th of September the charters of the Eclectic Medical College of Pennsylvania and the American University of Philadelphia were forfeited, the counsel for the defendants confessing judgment of ouster in favor of the Commonwealth.

At its last meeting the Kentucky State Medical Society voted to discontinue the publication of a volume of transactions. Its minutes will be issued in pamphlet form and the papers published in any medical journal their authors may select. This is a good example for other State medical societies.

Dr. C. A. Todd (St. Louis *Courier of Medicine*) says that the water of Philadelphia is simply detestable. At the present time it has a flat, brackish taste, much like swamp water. The source of the water is the Schuylkill, a small stream, dammed at the Water Works, sluggish in current, forming a sort of long pond, that is the boating place of the city. Small excursion steamers also ply up and down. Water weeds grow in abundance. Six miles above the dam large iron works occupy the right shore; nearer, on the left, a village drains into this stream—and such an inky contribution; both banks drain into the Schuylkill.

The Memphis Hospital Medical College is the name of a new organization in Memphis, Tenn.

Persons desiring copies of the several volumes of the Index Catalogue of the National Medical Library can obtain them of the public printer by remitting to him, in advance,

the cost of each volume, estimated at \$2.50, plus ten per cent.

The *Rocky Mountain Medical Review* is the name of a new medical journal published at Colorado Springs, Col. It is edited by Dr. A. W. Adams; contains thirty-eight double column pages about the size of the *DETROIT LANCET*; is issued, in good style, each month for \$5.00 per year. The present is an instructive and interesting issue.

The London correspondent of the *Louisville Med. News* records the death of Prof. Delpech, of Paris, and remarks that the secret of his success is to be found in that too common habit of men of ability, energy, and strong constitution, of seeking fame, occupation, notoriety, and a field for exertion everywhere instead of in one place only; forgetting the physiological laws which govern the activity and durability of the intellect and of the physiological constitution. Delpech was a surgeon, a sportsman, a politician, an orator, a hygienist, and a man of the world. He was at once too much and too little, and so before sixty he had worn out the tissues to which he had given too little rest. What are the traces which a Jenner, a Gull, a Watson, a Paget, or a Quain will leave on the marble stones which build up the temple of medicine? Absorbed in a multifarious work that comes to them from all sides; rejecting nothing that can lead them to fortune or fame; willing to appear whenever the finger of public clamor beckons; deserting their hospitals in the prime of life; ceasing to teach at the very period when their ripest knowledge makes them most valuable as teachers, they will be remembered only for a few years by those who have come under their personal influence, and they will have left little or nothing to be added to the useful knowledge of future times. Their baronetcies, their clients, the fashionable, the literary, and the scientific circles, which claim them for amusement, for show, and for adulation, rob them of the single-minded purpose with which a Hunter or a Faraday pursued the work which is indestructible by time.

The *Edinburgh Med. Jour.* makes the following remarks on the origin of specialism: "A young practitioner in consequence of the apparent necessities of his place of residence, or from a conviction that this or that specialty will suit his own qualifications and pecu-

liar bent, may determine to devote himself to it. This is probably the more common origin of specialism in a town or a neighborhood. And, of course, time will show whether or not the individual has acted wisely. The specialism, however, often takes its rise in a more promising and satisfactory way. The practitioner is found to possess exceptional attainments and to command exceptional success in a certain department of the profession. Such can consult him because he has already acquired a reputation for the treatment of them. They consult him in such numbers that his time for the ordinary routine of practice becomes very limited; his experience in the particular line indicated rapidly increases, and so, in spite of himself, specialism, at least a modified specialism, becomes a necessity. It is forced upon him by circumstances. This, to my mind, is the best mode in which specialism can arise, and for this reason, that the individual, educated all round in his profession, and actually practicing it, has exhibited a special aptitude of whose presence, skill and success have given satisfactory evidence. We do not say that a man cannot safely resolve, from the beginning, to adopt any specialism, because circumstances vary exceedingly as to personal and local conditions, but we are strongly of opinion that, as a rule, time and patient consideration should have some scope before this final decision is made.

Editor's Book Table.

The Books Noticed in these Pages are for Sale by E. B. SMITH & CO., Detroit, Mich.

Bartholow's Practice of Medicine.*

This work is intended, the author tells us, to form a companion volume to his work on *materia medica* and therapeutics. In recounting his materials for the preparation of this volume, the author tells us of the varied professional experiences that he has had as a medical practitioner. Thus, as a medical officer in the army, he studied disease in Kansas, Utah, Colorado, New Mexico, Minnesota, Washington, D. C., Nashville, Chattanooga, Baltimore. As a civil practitioner he followed an extensive hospital and private practice in Cincinnati. Excepting one

*Treatise on the Practice of Medicine, for the use of students and practitioners, by Roberts Bartholow, M.A., M.D., LL.D. Pages, 853; illustrations, 46. 1880. New York: D. Appleton & Co. Cloth, \$5.

of his unimportant diseases he tells us that he has had personal charge of all the maladies treated in this book, having made them the subject of clinical demonstration and post mortem investigation. Certainly, these experiences have afforded the author abundant clinical material for study and research. As the book describes about 260 distinct diseases, and as the author says that he has made post mortem investigation of all, two only excepted, we leave the reader to estimate the value of his therapeutics. As we find him describing crotodæ, a disease induced by tape worm; nematoda, a disease induced by round worm, and the disease induced by thread worm; anæmia; chlorosis; acute catarrh of the larynx; nasal catarrh; epistaxis; hysteria; writer's cramp; torticollis, and chicken-pox, we must believe he has made post mortem investigation of all but two of these affections. Accepting this as a fact, we readily acknowledge the remarkable completeness of his post mortem researches. We find in this work the characteristic features of the author's work on *materia medica*. That is positive statement, clear description, and great faith in the efficacy of drugs. Not having space, the author has refrained from giving most of the authorities of his statements. The illustrations he presents are from Thierfelder's atlas. The author's desire to give some positive views in the department of pathology has compelled him to express with decision the views he regards as correct. It will be seen from this that the author intends to antagonize the nihilism in therapeutics taught by the writings of the elder Flint. The work also differs from that of Roberts, in that the pathology of each disease is given with the disease, and that all the subjects are treated more briefly and less thoroughly. Careful examination of the book has induced us to regard it as an excellent condensation of Bartholow's clinical experience; of Bartholow's able and varied study of other writers; of Bartholow's experimentation, and of Bartholow's post mortem investigations. Thus the book is intensely individual—a feature that will render it popular with those who desire one to do their thinking for them. In this respect it probably surpasses any compilation on practice of medicine prepared in our day. The book is issued by the publishers in the same elegant style as the author's work on *materia medica* and therapeutics.

Bulkley on the Skin's Health.*

The author tells us that he has endeavored to accomplish four things. First, the correction of certain popular prejudices respecting skin diseases. Second, the directing how to care for the skin in order to prevent disease. Third, the giving of popular directions for the recognition and home management of skin diseases. Lastly, affording instruction by which the patient may aid his physician in the cure of skin diseases. The chapter on the structure of the skin clearly gives a fair statement of our present knowledge. It is so illustrated as to engage the attention of even an indifferent reader. In speaking of the care of the skin he discusses the so-called medicated soaps; respecting them he says most of this attempt to medicate soap is a perfect farce—a delusion and a snare to entrap the unwary and the uneducated. The soap is to cleanse—it is applied but for a few moments and washed off, and is incapable of effecting a cure of the skin. The assertion can be made with truth that scabies which sulphur, if rightly used, will certainly cure, never has been and never can be cured by this remedy in form of soap. Tar soap neither keeps the skin always well nor cures it when diseased. Carbolic soap is useless and may be dangerous because the carbolic acid may possibly cover a cheap poor soap. Respecting the soothing soaps as glycerine, honey, cuticura, oatmeal, almond, and a host of others, at their best they are only bland soaps, and in no way superior to a perfectly pure soap without these healing properties. The safest soap to use of those ordinarily employed is, undoubtedly, very old white castile soap.

Respecting the remainder of the book we think the author has erred in endeavoring to condense in it a scientific treatise on skin diseases.

Vital Statistics of Michigan.†

Some idea of the complexity and extent of the work exhibited by this volume may be gathered from the statement that the index

***THE SKIN IN HEALTH AND DISEASE**, by L. DUNCAN Bulkley, M. D. 1880 Philadelphia: Presley Blakiston. Cloth; pages, 148; price, 50 cents.

†**EIGHTH ANNUAL REPORT** relating to the History and return of Births, Marriages and Deaths, in Michigan, for the year 1874. By the Superintendent of vital statistics, Henry B. Baker, M. D., under the general direction of the Secretary of State of Michigan. Lansing, W. S. George & Co., printers. 1880. Cloth, pages, 362.

contains fourteen closely printed pages. The number of births in 1874 is given as 55,841, and the deaths as 20,090; the excess of births over deaths, 35,751. Number of marriages, 11,041. These figures represent the corrected returns and include the supposed neglected reports of deaths.

On page 258, we find a list of fifteen diseases, given as the causes of more than half the deaths. The greatest number of deaths is caused by consumption, then pneumonia, then typhoid fever, then still births, then scarlet fever. Embodied in the report is an account of the meteorological conditions as observed by Dr. Kedzie at the State Agricultural College. By comparing thus the death records with the meteorological conditions at same date, we learn that with a dry, cold and a sharp wind and abundance of ozone, pneumonia is most fatal. We learn, also, that persons are more susceptible to pneumonia in childhood and advanced age, and that the danger is the greatest in February, March, April and December. In like manner the conditions under which various other diseases prove fatal are admirably set forth. It is to be hoped that sufficient clinical aid may be furnished the Superintendent that he may be able to bring his registration of reports nearer to the present time. The work, as a whole, is admirably done, and reflects great credit upon all concerned in its preparation, especially on the Superintendent, Dr. H. B. Baker.

First Report of the Massachusetts State Board of Health, Lunacy and Charity.*

The record of work accomplished by this Board is inferior to that usually presented by the old Massachusetts State Board of Health. The Secretary of the Board makes a report upon the pollution of the Westfield and Merrimac Rivers. F. S. Billings, M.D., makes an interesting report upon trichinæ in their relation to public health. He examined 2,701 hogs, and found 154 infected with trichinæ, a percentage of 1 in 17.54. He recommended, for the prevention of this disease, 1st, The examination of slaughtered pigs by competent persons; 2d, All pens and places for keeping hogs should be definitely regulated with reference to situation, con-

***FIRST ANNUAL REPORT** of the State Board of Health, Lunacy and Charity, of Massachusetts. 1879. Boston, Bard, Avery & Co., Printers. Paper, pages, 277.

tents, cleanliness, etc.; 3d, All sick hogs should be properly isolated from healthy ones, under the supervision of sanitary inspectors; 4th, State Boards of Health should seek to educate the people in a knowledge of the subject; 5th, From his own examination of the rats and hogs at an establishment on one of the Boston islands, he shows that thirty-nine out of fifty-one of the rats were trichinous, while all the hogs were free from trichinæ. These hogs were neither fed on city swill or mashed meal; 6th, Boards of Health should instigate exact researches into the real sources in which the swine obtain the parasites; 7th, No contents of water closets, and houses for human beings, or drainage from house sinks, should be allowed to enter hog pens; 8th, Feeding the offal of slaughtered swine to other swine should be forbidden by law.

He suggests further exact experiments and observations upon the etiology of this disease.

Ellen H. Richards, M.D., makes a report upon the adulteration of some staple groceries. Most of the adulterations found are harmless in their relations to health.

Dr. Edward S. Wood makes an elaborate report upon the water supply of Cambridge.

Prof. W. B. Nichols reports observations on fresh water ponds and Mystic water.

A. Fleley, C. E., makes a report upon algæ observed in storage basin number three of the Boston water supply of 1878.

Dr. W. G. Farlow makes a statement of our knowledge respecting the effect upon the water in ponds of the growth of different plants.

The drainage of summer hotels and boarding houses is the subject of an able paper by Mr. E. W. Bowditch.

Suggestions on sewerage is the title of an excellent illustrated paper by Elliot C. Clark, C. E.

The volume concludes with an account of the health of various towns in the State.

Transactions of the Missouri State Medical Society.*

Of the eight papers forming the body of this report, six are surgical. One other treats of miasmata, and one of the relation of mind to matter. Reports are given on progress of surgery, on medical education,

*TRANSACTIONS of the Medical Association of the State of Missouri. 1890. St. Louis, Mo.

on the progress of medicine and medical education. This latter paper is exclusively devoted to a discussion of the medical schools of Missouri. From it we learn that Missouri contains seven medical schools, viz: Three in St. Louis; one in Kansas City, two in St. Joseph and the medical school of the State University at Columbia. The writer evidently believes the cause of medical education would be greatly benefited by certain changes in the practical workings of these schools. Of these we may mention: 1, The adoption and enforcement of a fair matriculation examination; 2, The increase of time actually spent in college study to three terms of at least six months each; 3, The adoption of an intelligent graded course. Dr. George Englemann, in a most graphic manner portrays the dangers which may follow the simplest uterine manipulations and operations. We wish that every practitioner of medicine could be induced to ponder the lessons here given. Cases reported show that serious illness or death has followed the introduction of the uterine sound, applications to the cervix and uterine canal, intra-uterine injections, vaginal injections, sponge tents, scarification of the cervix, incision of the external os, operations for laceration of cervix, use of the curette, removal of small pedunculated polypi from the uterine cavity, and from trifling operations on the lacerated perineum. The author's object is not to discourage operations or necessary manipulations, but simply to suggest the greatest caution in the performance of such operations. The work as a whole, while tastefully printed, scarcely does justice to the profession of the great State of Missouri.

Robinson on Catarrh.*

We seem to be in the midst of an epidemic of treatises on catarrh. One comes to us from Louisville, Ky.; one from St. Louis, Mo.; and now one comes from New York City. The reason for the production of each work is much the same in each case; each author has had such an extended experience that he must needs go and tell his brethren all about it. The St. Louis book pleased us because we thought it might help people to keep well. The general scope of the New York work may be gathered from the auth-

*A PRACTICAL TREATISE ON NASAL CATARRH. By Beverly Robinson, A. M., M. D. Cloth, pages, 162. New York, William Wood & Co. 1890.

or's preface. Thus he says: "I have especially wished to write a succinct though complete account of personal experience and convictions." In short, the author proposes to give us Robinson in so far as he relates to catarrhal inflammations of the nose, and no one else. From his representation of himself, we conclude that the author really possesses a fair knowledge of the subject. But we find nothing that we have not seen elsewhere. Still the grouping around the stem of personal experience of a considerable number of valuable observations of other people is a task helpful to other workers. The work is carefully written, well illustrated, and issued in the usual elegant style of Wood's medical publishing house.

Duhring's Atlas of Skin Diseases.*

This fac simile of Duhring's magnificent work illustrates four forms of skin diseases; viz.: eczema pustulosum, impetigo contagiosa, sphiloderma papulosum and lupus vulgaris. The execution of the plates, if possible, surpasses those preceding them, and the text describes the plates with the author's well known skill.

Third American Edition of Wells on the Eye.†

For many years Wells on the eye has been most popular with medical students and general practitioners. Owing to the illness and death of Dr. Wells, the issue of this edition has been delayed for many months. To Dr. C. S. Bull was committed the task of revision, and with excellent taste and good judgment he has accomplished his work. Some few needful alterations have been made in the original text; some passages have been omitted; the order of some paragraphs has been changed. Many extensive additions have been made to every chapter; this is especially noticeable in the chapters relating to pathology and treatment. As it now stands it will prove as popular and useful to medical students and general practitioners as ever. Not the least among its good qualities are its illustrations, its clear open type. It is a very readable book.

*ATLAS OF SKIN DISEASES. By Louis A. Duhring, M. D. Part VII. 1890. Philadelphia, J. B. Lippincott. Price, \$2.50 per part.

†A TREATISE ON the Diseases of the Eye by J. Seelberg Wells, F. R. C. S. Third American, from the third English Edition, with copious additions by Chas. S. Bull, A. M., M. D., illustrated with two hundred and fifty-four engravings and six colored plates, together with selections from the test types of Jæger and Snellen. Cloth; pages, 895; price five or six dollars according to binding.

The Protection of the Insane.*

The platform of this organization contains the following complimentary allusion to the association of superintendents of insane asylums; "it includes only the medical superintendents of insane asylums, and it is safe to say that their interest in the insane bears no greater proportion to the public interest in the same class than their membership bears to the vast number of the insane under treatment, together with their families and friends." Dr. Geo. M. Beard, in a paper, says that diseases like flowers are developing with each decade new phases, presenting unheard of manifestations, the friction of our civilization. Again not only have new forms of insanity arisen, but the actual number of the insane and the relative numbers to the population are much greater than fifty years ago. Third, the peculiar helplessness of the insane calls for the organization of societies for their protection. Fourth, this society is called for that it may help to bring about the principle of central governmental supervision of the insane in or out of asylums, through all the States of the Republic. Fifth, a society for the protection of the insane is called for that it may raise the standard of thought and of treatment of the insane, both in and out of asylums. Sixth, this society is needed to collate a knowledge of all the branches of the subject and diffuse it through all ranks of society. This society will have justified its existence if it shall succeed in nothing else but this, in obtaining universal recognition of the fact that it is no disgrace to be crazy. Dr. J. C. Shaw contributes an excellent paper on non-restraint. In treating the insane as seen at the King's County Asylum, he says, we have over 700 patients, on an average one attendant to fifteen patients; no grounds to speak of, except an airing court, and a comparatively low diet. The patients are less violent and more contented. The control of the attendant is far less irritating than restraint apparatus. As soon as we find that a patient takes a dislike to a nurse, and cannot get along with her or him we remove the patient. He further says that he did not find it necessary to dismiss any of his attendants to carry out the non-restraint plan, but they were given to understand that it had to be carried out,

*NATIONAL ASSOCIATION for the Protection of the Insane and the Protection of Insanity. Cloth; pages, 31. 1890. Boston: Tolman & White, Printers.

and no harshness would be tolerated; and they were closely supervised. This is important evidence in the case.

Heath's Minor Surgery.*

For many years this little work has been deservedly popular with medical students. In many features it supplements all other surgeries, in that it calls attention to those minor points which are imparted only by oral instruction or are simply imitated from one's predecessors. In the edition before us the author has made such alterations as are called for by increased experience and further progress in surgery. As an aid to the study of other books, both by introducing the mind to them and by supplementing their teachings, it will be of material service to all surgical students.

Hamilton on Fractures and Dislocations.†

For over twenty years this classical work has been before the profession. Universal verdict has pronounced it, humanly speaking, a perfect treatise upon this subject. In the revision of the present edition the author has gone carefully over every chapter, taking from or adding to it, as was needful, in order to make it represent the exact state of our knowledge on these subjects. He has added a chapter on general prognosis; some of the old illustrations have given place to new and better ones; many new ones have been introduced. In all, the illustrations now number three hundred and fifty-two. As it is the only complete and illustrated work in any language treating of fractures and dislocations, it is safe to affirm that every wide-awake surgeon and general practitioner will regard it as indispensable to the safe and pleasant conduct of their professional work. The publishers have issued it in three different forms, viz., cloth, sheep and half Russia. The latter form has been introduced to encourage a growing taste for better bindings. The price is only fifty cents additional for the finest binding.

*A MANUAL OF MINOR SURGERY AND BANDAGING. By Christopher Heath, F. R. C. S. Sixth Edition. Revised and Enlarged. With One Hundred and Fifteen Illustrations. Cloth. Pages 342. 1880. Philadelphia: Lindsay & Blakiston. Price, \$2.00.

†A PRACTICAL Treatise on Fractures and Dislocations. By Frank Hastings Hamilton, A. M., M. D., LL. D. Sixth American edition, revised and improved. Illustrated with three hundred and fifty-two wood cuts. Pages, 1,000. 1880. Philadelphia, H. C. Lea's Son & Co. For sale by John Willyoung, Detroit, Mich. Cloth, \$5.50. Sheep, \$6.50. Half Russia, \$7.00.

Transactions of the Georgia State Medical Society.*

This volume contains fourteen separate papers, besides the President's address and annual oration. Seven of these are surgical, three relate to eye diseases, three to gynecology. Nearly the entire volume is occupied with surgical subjects. The President's address most eloquently portrays the physician's vocation, as Southern tongues only portray it. The papers, while well prepared and interesting, contain nothing new. The volume is well printed on good paper.

Transactions Kansas State Med. Society.—1880.†

In looking over the minutes of the meeting, we noticed that the society unanimously resolved that it does not and will not hereafter recognize the St. Joseph College of Physicians and Surgeons, of St. Joseph, Mo., as a regular institution for medical education. Quite a large number of papers are published; these, with the discussions, indicate that the fourteenth annual meeting of the society was alive to the interests of the profession. As a result of the operations of their medical law for one year, we have a list of such physicians as possess diplomas, also a list of those to whom licenses have been granted.

*TRANSACTIONS of the State Medical Association of Georgia. Thirty-first Annual Session. 1880. Cloth; pages 251. Augusta, Ga.

†TRANSACTIONS of the Kansas State Medical Society at its Fourteenth Annual Session. May, 1880. Paper, pages, 107. Lawrence, Kansas.

Abstracts from Exchanges.

Prepared by Judson Bradley, M. D., Albert B. Lyons, M. D. and E. A. Chapoton, M. D.

Anatomy.

THE CONSTITUTION AND RELATIONS OF BONE LAMELLÆ, LACUNÆ, AND CANALICULI, AND SOME EFFECTS OF TRYPSIN DIGESTION ON BONE.—Mr. DeB. Birch, (*Journal of Physiology*, Vol. II, Nos. 5 and 6—*Medical News and Abstract*, Oct., 1880) concludes an interesting study upon the above subject, as follows: (1) A lamella of bone consists of a number of bundles of fibrils arranged in the same plane and in the main parallel to each other, but communicating occasionally by lateral offshoots. (2) Neighboring lamellæ have the direction of the fibrils set at different angles, and the fibres of ultimate

lamellæ correspond to each other in direction very closely. (3) There are no elastic fibres in the lamellæ of the Haversian systems. (4) There is a membrane around the lacunæ and canaliculi isolable throughout its connections, and especially after treatment with chromic acid and digestion by trypsin. (5) The canaliculi are contiguous with a membrane lining the Haversian canal, this being homogeneous in structure and of the same nature as the membrane of the lacunæ and canaliculi. (6) These membranes differ in nature from the cementing substance, as evidenced by the above mentioned reactions, and are not mere condensations of that substance, as their outlines are sharply defined and perfectly even when isolated by the process mentioned. (7) Periods of cessation in the deposition of Haversian systems of considerable duration probably occur, be the cessation throughout the length of the system or partial, and a membrane is formed at such periods around the temporary lumen similar to that which is afterwards formed round the permanent canal. (8) In consideration of the behavior of tryptic digestion in producing the appearance described as occurring in the ox's rib, the older intermediate lamellæ are less resistant than the younger ones, and than the Haversian systems and masses of inner lamellæ, some change having taken place in the cement.

Chemistry.

ORGANIC MATTER IN THE AIR.—Prof. Ira Remsen (National Board of Health *Bulletin*) gives us the results of a long series of investigations into the above subject as follows: (1) The nitrogenous matter in the air may be collected thoroughly by means of a pumice-stone absorber. (2) The total amounts of ammonia found in experiments performed at the same time with the same specimens of air agree fairly well with one another, so much so as to warrant the use of the method for the examination of air. (3) When the free and albuminoid ammonia are determined, the results obtained do not always agree very closely, but still the agreement is sufficient to enable the experimenter to detect such variations as are likely to occur between pure and impure air. (4) Air contaminated by being drawn through water containing decaying meat does not yield more than the usual quantity of albuminoid ammonia. (5) Air contaminated by being drawn over com-

paratively dry decaying organic matter yields more than the usual quantity of ammonia albuminoid. (6) Air contaminated by respiration yields more than the usual quantity of albuminoid ammonia. (7) It is necessary in judging of the purity of air to take all the facts known in regard to it into consideration. The simple determination of any constituent can never be a sufficient basis for the formation of a competent judgment. (8) It would be useless to have examinations made by any but the most careful workers. It would be time thrown away to have such analyses made by the average practical chemist. Among the questions still remaining unanswered are: (a) Is the air which has been deprived of its nitrogenous matter also deprived of its injurious constituents? (b) Does the amount of organic matter in the air vary with the different conditions of the air, as for instance, with the hygrometric state? (c) How much nitrogenous organic matter from ordinary contaminating sources can be held in suspension in the air?

Physiology.

ORIGIN OF BLOOD CORPUSCLES.—Professor Rindfleisch (*Archives Microscopic Anat.—British Med. Jour.*) gives us his recent studies of the red marrow of the cancellous bone tissue as the source of red blood corpuscles. In red marrow are found certain cells with reddish yellow homogeneous protoplasm, and distinct nuclei-cells in every respect resembling the nucleated corpuscles of foetal blood. The spleen bears similar corpuscular structures and is recognized as a seat of blood formation. The red marrow then has the same function. In different morbid conditions the blood has been explored, but with significant results only in anæmia and æskemia. Smaller and larger forms of nucleated red corpuscles have been detected under these and other circumstances. The connection between these has been specially studied by the author. First he explored the vascular relations of red marrow. No structure is so difficult to inject; for the periosteal and Haversian arterioles and capillaries, generally empty after death, are easily injected, but the vessels of the marrow are then full of blood. Rindfleisch, by injections into the cancellous tissue of the ribs of guinea-pigs, found that the red marrow derives its color from its blood form-

ing cells alone. He found the red marrow vascular system as follows: "The different arteries of the narrow-meshed capillary plexus of the marrow are slender. They penetrate to the middle of the medullary canal and end as thin twigs, running almost parallel to the axis of the bone, and branching frequently at right angles they join the capillaries at a few points near the surface. These arteries hold hardly one-twentieth of the injection necessary to fill the veins and capillaries together. The veins, relatively thick, unite in every medullary cavity into at least one main trunk, which appears beset on all sides by its short secondary venules, the recipients of groups of true capillaries. At distinct points, emissary vessels leave the trunk for the surface of the bone. Unlike the brain the bone marrow has no cerebrospinal fluid to modify the variations in pressure of the circulation. Hence, if the blood pressure increases towards the bones, the blood current in the medullary vessels cannot distend them, since the bone without makes them unyielding, so it has simply to go faster. This happens when there is any improvement in the volume of blood during convalescence; and the result is the more rapid washing away of certain solid blood elements which are under these circumstances much needed to repair loss. The veins of the red marrow, as well as the greater part of the capillaries, possess no special wall; whilst the arteries possess an extremely delicate membranous coat completely disappearing at the commencement of the capillary system. The capillaries are sharply divided into an arterial and venous set. The arterial are given out at acute angles from the ends of their arteries; they are spread regularly, but not abundantly, over the whole marrow. They still possess a membrane with long rod-shaped nuclei; towards the venous capillaries these nuclei become longer and thinner, crossing each other and forming a kind of trellis work, which probably represents not so much a wall as the dissolution of the closed walls of the vessels into the surrounding parenchyma. In torn fragments of medullary tissue, the arterial capillaries may readily be distinguished from the venous by their lesser calibre and straight course, and especially by the presence of a nucleated membrane on the surface of the blue mass of injection which fills their

lumen after preparation. The venous capillaries have a calibre two or three times as great as that of the arterial capillaries. Their surfaces possess numerous offsets which throw out thin, straight tertiary branches, running in opposite directions parallel to the axis of the vessel. Plastered all over the injection, filling these twigs and projecting into their lumen, are large cells, identical with those of the rest of the red marrow." Rindfleisch concluded that the veins are widely divided sinuses without walls and running through the midst of the blood corpuscle, forming medullary tissue. Through this arrangement the productions of that tissue are readily abstracted and carried into the circulation. Having washed the parenchyma with a weak solution of chloride of sodium, the medullary parenchyma is readily studied. First are seen reddish yellow nucleated cells, exactly like the nucleated red corpuscles of fœtal blood. These nucleated red marrow cells undergo session, commencing at their nuclei. The more quickly this process proceeds the smaller will be the resulting red corpuscles. Besides these cells, leucocytes abound in marrow. These are also "great celled elements," probably altered forms of the narrow cell, just described, and also the well-known giant cells which he looks upon as deposits of formative material that have not been wanted. All the above cellular elements are considered by the author as organs of sanguification, as no part of the permanent parenchyma, which consists of stellate fibres composed of protoplasm partly displaced by fat cells. By a simple process of fatty degeneration the red marrow becomes yellow. The non-nucleated red blood corpuscles are developed from the nucleated hæmatoblasts of the marrow in the same manner as the nucleated cells in the embryo precede the non-nucleated form. A large number of observations upon fœtal guinea-pigs were made to substantiate the foregoing statements.

THE DIAPHRAGM: ITS FUNCTIONS.—Dr. W. S. Forbes (*Amer. Jour. Med. Sciences*, July, 1880), from a careful study of the diaphragm, concluded: (1) The vena cava inferior opening, the highest point in the central tendon of the human diaphragm, holds a constant and fixed relation to the right anterior inferior border of the ninth dorsal

vertebra. (2) That portion of the central tendon embraced by the base of the fibrous pericardium is prevented from descending in inspiration by the superior tendinous crura of the diaphragm, which are formed by the lateral parts of the fibrous pericardium ascending on either side in two planes, to be attached to the apex of the bony thoracic cone, and through the deep cervical fascia to the processes of the cervical vertebræ and to each stylo-maxillary ligament. (3) These superior tendinous crura of the diaphragm are connected together by transverse and oblique fibrous bands, thus forming a fibrous scaffolding for the support and protection of the heart and the great cardiac vessels. (4) The opening in the fibrous scaffolding for the lodgment of the ductus arteriosus in foetal life is closed by the contraction of the muscular fibres ascending on the fibrous pericardium from the anterior left side of the diaphragm in the neonatus. (5) The blood in the pulmonary artery of the neonatus is forced into and through the right and left pulmonary arteries and into the lungs by the contraction of the right ventricle, which at this moment has its walls as thick as those of the left ventricle, and by the elasticity of the pulmonary artery, and is not drawn into the pulmonary arterial branches and into the lungs by the expansion of the lungs. (6) The superior fibrous crura and the fibrous scaffolding between them are made tense and open for the lodgment and for the protection of the heart and its great vessels, and for the promotion of the circulation of the blood through them by the contraction of the muscular diaphragm, independent of the descent of its lateral wings, though in the descent of the lateral wings of the diaphragm the vertical area of the thorax is extended. (7) In the contraction of the muscular diaphragm its descent is not necessary, as it contracts on its own planes, which may be supported by the contraction of the strongest abdominal muscles. (8) The diaphragm is rather an appendage of the circulatory apparatus, and not "essentially the chief agent in respiration."

LEUCIN AND TYROSIN IN THE URINE.--Dr. E. C. Anderson (*British Med. Jour.*, Sept., 1880) states that these substances are present in the urine in acute yellow atrophy, in chronic wasting of the liver, in typhus, small-pox and in leucocythæmia. In a case of

jaundice from obstruction, he discovered in the urine leucin and tyrosin; during convalescence tyrosin first disappeared and finally leucin; and during each return of the symptoms on future slight recurrences leucin reappeared. Out of fifty-two individuals observed and recorded, in whose urine either leucin alone, leucin and tyrosin, or tyrosin alone existed, there were of jaundice, two; cirrhosis, one; acute rheumatism with pneumonia, two; heart disease, three; hepatic derangements, ten; phthisis, three; hemiplegia, one; sciatica, one; cholera, one; chronic dysentery, one; colic, one; pneumonia, one; pleuro-pneumonia, one; nephritis, etc., one; anæmia, one; Bright's disease, one; measles with peritonitis, etc., one; rōtheln, two; tabes mesenterica with obstruction, one; chronic bronchitis, two; puerperal eclampsia, one; chronic asthma, two; delirium tremens, one; pertussis, one; cancer, one; puerperal septicæmia, one; cardialgia, one; measles, one; general decay, one. Thus there were twenty-nine different diseases in which either leucin or tyrosin or both existed. Only those cases were recorded in which these substances were found in considerable quantities. He believed that the existence of leucin and tyrosin in the urine was due to corresponding deficiency of urea.

COLOR-SENSE, METHOD OF TESTING IT BY COLORED SHADOWS--Dr. S. M. Burnett (*American Jour. Med. Sciences*, Oct., 1880) gives the following description of the above method: "The examination is made in a darkened room. Two lights, a candle and a lamp, are placed on a table about twenty-five centimeters from the wall, which is covered with white paper. These lights are about twenty centimeters distant from each other. Before the lamp a colored glass, say red, is placed. You will then have the white paper illuminated by both the red and white lights. If you now place a lead pencil upright on the table, two centimeters distant from the wall, and equi-distant from the two lights, there will be two shadows, one thrown by the red light, and one by the white light. Where the white light is cut off by the pencil, there will be only the red color; while where the red light is cut off by the pencil there will be only the white, but by the law of contrasts, the shadow on the white ground will be the complimentary

color of the colored shadow; hence, to the normal eye, the one shadow will appear red, while the other will be green. To the color-blind there will be no difference.

Action of Medicines.

ANTAGONISMS OF ACONITIA ON THE FROG'S HEART.—Dr. Sidney Ringer from an experimental study of the above subject, (*Journal of Physiology*) draws the following conclusions: (1) Aconitia slows and weakens the heart and inco-ordinates the ventricular contraction, this inco-ordination occurring before the heart's contractions are greatly weakened. (2) Sometimes the contractions, though greatly slowed and very inco-ordinate, continue fairly strong until the heart stops. (3) Aconitia acts on the ventricle far more rapidly and powerfully than the auricles. (4) Aconitia has a more powerful action on the cerebro-spinal centres than on the nervous structures of the heart, for after complete paralysis, the heart often continues to contract well for a considerable time. (5) The general depression from a poisonous dose of aconitia is partly, and perhaps chiefly due to the direct action of the drug upon the nerve centres, rather than to the weakening of the circulation consequent upon the failure of the heart. (6) Atropia antagonizes the action of aconitia on the heart. It restores the contractions in a heart arrested by aconitia, and strengthens, accelerates, and co-ordinates the heart simply weakened, slowed and inco-ordinated by aconitia. (7) Aconitia does not antagonize the action of muscarin. (8) Atropia antagonizes the combined effects of aconitia and muscarin. (9) Pilocarpine does not antagonize the action of aconitia upon the heart.

HOMATROPIN HYDROBROMATE—ITS ACTION ON THE EYE.—Henry S. Schell, (*Phil. Med. Times*, Oct. 9, 1880,) reports eleven observations on the use of this drug, from which he concludes: (1) Homatropin hydrobromate is not well adapted to the treatment of inflammatory or traumatic affections of the eye, on account of the conjunctival irritation it produces. (2) It is especially adapted to the production of that temporary dilatation of the pupil, and paralysis of the ciliary muscle which is so often required in examining the condition of refraction. (3) The best solution to use, is one containing sixteen grains to the fluid ounce of water. From one to

five drops of such a solution may be required to produce the desired effect, according to the strength of the ciliary muscle. (4) Under the influence of a full dose, the pupil attains its maximum dilatation in about twenty minutes. (5) With a full dose the accommodation begins to fail in about ten minutes, and is usually suppressed in a half hour, although exceptional cases may require an hour. This total suppression lasts about three hours; the accommodation then recovers itself and is fully in action again at the end of from ten to thirty hours from the time of the last instillation. (6) The local action of the mydriatic is not accompanied by any unpleasant effects upon the general system.

ANÆMIA TREATED BY THE COLD PACK, FOLLOWED BY MASSAGE.—Drs. Mary Putnam Jacobi and Victoria A. White (*Archives of Medicine*, Aug. and Oct. 1880,) record very extended researches into the above mentioned treatment of anæmia. From these they find the following: Anæmia is a morbid state, characterized by an inability on the part of the tissues to condense oxygen and to store albumen in sufficient quantity. The inability is frequently congenital, or acquired in early childhood. As a first consequence, the reserve material required in the elaboration of force is everywhere deficient. As a second consequence, this elaboration of force is deficient, there is a generalized functional debility. The atrophy of the blood corpuscles or of hæmoglobine, is not an isolated lesion, alone characteristic of anæmia. It is rather the most easily demonstrable illustration of a disorder common to all the organized albuminoids of the body. The cold pack meets the following indications for the treatment of anæmia thus understood: (1) In the first moments of application it produces the same stimulation of the peripheral nerves as may be caused by any application of cold, shower bath, douche, plunge bath, etc. (2) It impresses upon the mass of circulating blood a profound movement of oscillation, first from without inwards, then the reverse. The effect is different in the two periods. During the inward movement of the blood, the tension of the abdominal vessels, which has at first been lowered through the agency of the depressor nerve, at first relaxed, becomes raised by the increased volume of blood driven to them, and circulating through the

abdominal viscera, not with increased rapidity, but with increased force. As a consequence, there is: (a) Increased metamorphosis of albuminoid substances in liver and spleen, resulting finally in greater production of urea. When iron is absorbed with the albumen, there seems to be initiated in these same glands more abundant regeneration of red blood corpuscles. (b) Increased consumption of stored or latent oxygen in the series of oxidations culminating in urea. Hence during the period following the pack, probably increased absorption of oxygen, coinciding with diminished oxidations. The latter is indicated by diminished production of urea. (c) Probably increased movement of assimilation of now decomposed albumen, coinciding with the movement of increased decomposition, affecting that portion of circulating albumen which has originated the urea, both movements immediately dependant on an increased force of elementary intervascular circulation. (d) Probable assimilation of the non-nitrogenous portion of the decomposed albumen. (e) Increased elimination of water from the kidneys and hence aspiration of excess of water from anæmic tissues. (f) During this elementary out-streaming of water, facilitated washing away of acid fatigue products from nerves and muscles. During the oscillation of the blood from within outward, we have: (a) Diminution of passive hyperæmia in the alimentary mucous membrane. (b) Increased nutritive absorption, partly in consequence of allayed hyperæmia, partly as the direct expression of a movement of fluids outward from the alimentary canal. (c) Afflux of blood to muscles, enabling them to increase their store of contractile material, and thus become more capable of exercise. (d) In this afflux, and on account of thermic irritation of the peripheral nerves, increased production of heat. From the co-incident immobility of the body and the arrest of radiation a certain proportion of this increment is saved. (e) In the production of heat in response to a physiological stimulus, the nervous system, through the portion involved in the reflex mechanism, is especially stimulated, and the stimulus is immediately followed by special provisions for repose. During the afflux to the periphery, blood is drawn from the nerve centres, which are thus placed in a condition analogous to sleep.

A condition favorable to repose and to nutritive assimilation; the establishment of an equilibrium of temperature is followed by a cessation of chemical activity in the muscles and necessarily by sedation of the nerves. (3) During the pack the radial pulse is slackened and its tension lowered. We may infer increased facilities for innutrition in tissue elements hitherto irritated rather than nourished by a blood stream imperfect in quantity and too rapid in duration. Massage intensifies and prolongs some of the effects of the pack, when this has been previously administered. Alone its influence is less complete, because it is less certain to determine blood to anæmic muscles. The cold pack is decidedly dangerous, if administered too near to periods of abdominal hyperæmia, whether physiological, as digestion and menstruation or pathological, as in peritonitis.

URECHITES SUBERECTA—ITS PHYSIOLOGICAL ACTION.—Dr. Isaac Ott, (*Therapeutic Gazette*, Oct., 1880), gives the results of a recent study of this plant. It is a native of Jamaica; both the flowers and green parts of the plant are active. Mr. Bowrey by analysis has obtained from the plant three active substances, viz.: urechitoxin, amorphous urechitoxin and urechitin. From an alcohol urechitoxin crystallizes in thin four-sided prisms, bounded by two planes, from water it crystallizes in sharp needles. It is extremely bitter and produces a tingling smarting on the lips and tongue, the parts feeling tumified. Urechitin crystallizes in four-sided prisms transparent and colorless. It resembles urechitoxin in bitterness as well as toxic properties. The poisonous properties of the plant are due to urechitin; the other substances being the result of changes in its chemical composition. It contains no nitrogen; is a powerful toxicant; kills mainly through cardiac arrest; does not paralyze the motor nerves; does not paralyze the sensory nerves; does paralyze the spinal sensory ganglia; it reduces the pulse by an action on the heart, probably on its muscular tissue; it increases arterial tension and then depresses it, the rise is due either to an action on the peripheral vaso motor system, or to a cramp of the intestinal canal; the pneumogastrics are not paralyzed; it causes no delirium cordis; it is a salivator; it increases the secretion of the skin. Dr. Ott suggests that since urechites is to such a great degree a

cardiac agent, it would be advisable to try it in cases similar to those in which aconite has been employed, since it produces the same effects as aconite in a somewhat different manner. Experience only can decide whether it is superior or inferior to aconite.

Pathology.

EPILEPSY FROM FOREIGN BODY IN THE EAR.—Dr. Katz, (*La Presse Med. Belg.—Med. Surg. Reporter*), reports the case of a woman, aged thirty years, who without any history of nervous disease had for a year been troubled with tinnitus aurium and epileptiform attacks at intervals of from one to two months. All the means employed to shorten the attacks had been fruitless. At the doctor's first examination he found at the bottom of the left meatus a roll of cotton covered with cerumen. This being removed the woman was relieved of her tinnitus and fits.

PATHOLOGICAL RELATIONS OF THE EYE AND EAR.—Dr. Dransart, (*Le Prog. Medical—Med. Press and Circular*), reports four cases bearing upon the above subject, viz.: (1) A tinker lost his right eye in 1870 by a wound from a fragment of iron, producing traumatic cataract; as a result of this accident he became deaf in his right ear. In 1880 he received a similar fragment in the left eye, and he became deaf in the left ear. He was an alcoholic subject. (2) A child, aged twelve, was struck by snowball in the right eye; he became deaf in the right ear. Father and mother were syphilitic. (3) A girl aged 18, scrofulous, deaf and almost blind; multiple lesions of the sclerotic, cornea, and iris; double iridectomy; sight was restored to the patient and hearing improved. (4) A girl aged 8, deaf, ocular lesion, iridectomy, amelioration of vision, and diminution of deafness with reserve, the author concludes that there exists a pathological reflex relation between the eye and ear. This relation which takes place through the medium of the trigeminus is such that a wound of the eye may induce deafness, or may ameliorate a deafness already existing. This relation operates preferably under certain pathological conditions, such as syphilis, alcoholism, lymphatism or scrofula.

EXPERIMENTAL UREMIA.—Feltz and Ratter (*Revue Med. de L'Est,—Philadelphia Med. Times*, Sept. 25, 1880.) concludes a pa-

per upon experimental uremia with the following conclusions: (1) The sudden suppression of the urinary function by ligature of the renal vessels, gives rise to a rapid poisoning of the organism commencing with gastrointestinal troubles, and terminating in serious disorders of the nervous system. (2) The maximum duration of life in animals who have submitted to this operation, is three days. (3) Under these conditions the urea and extractive matters increase in the blood almost proportionately to the duration of life; these substances appear in all the liquids of secretion, which indicates on the part of the organism an effort of elimination going on to supply the renal function. (4) Injections of pure urea in large doses into the blood of animals in whom the renal vessels have already been tied, causes the accumulation of extractive matters and urea to a much greater extent than simple ligature, without appearing to hasten the nervous symptoms and death. (5) By substituting under the same circumstances for injections of large doses of urea, injections of fresh urine well filtered and acid, not ammoniacal, in quantity equivalent to that secreted in twenty-four hours, nervous accidents show themselves more rapidly and death is hastened, which seems to indicate that the urine as a whole has a more energetic toxic action than urea and extractive matters.

THE HEMORRHAGIC DIATHESIS.—St. George L. Hopkins, M. D., (*Pacific Med. and Sur. Jour.*, July, 1880) says: "The chief characteristic of the disease commonly known as hemophilia, or the *hemorrhagic diathesis*, is an uncontrollable propensity to bleed." The disease seems to depend on one of three distinct conditions. (1) It may be congenital and not infrequently hereditary, especially in the male line. In some families, males only have been affected, and the diathesis has been transmitted to the fourth generation through the female only, who, though they themselves are but slightly affected, still have male children who are decidedly affected. (2) The hemorrhagic diathesis may occur in individuals who have soft, flabby textures; the tissues having lost their normal contractile power. (3) The hemorrhage may depend on a *morbid* state of the blood itself, in consequence of which it has lost its coagulability, the fibrin being insufficient in quantity. This is especially apt

to occur as a consequence of diseases that produce a diffuent state of the blood, such as chronic jaundice and albuminuria. The circumstances of the disease appears to support these conclusions: (1) It is intermittent in character. (2) The strong action of the arterial system as shown by the mental excitement before the attack. (3) The immunity from excessive hemorrhage even after wounds in the intervals between the attacks. (4) The rare occurrence of bleedings in persons who have some steady outlet, as hemorrhoids. (5) The facility with which bleedings are sometimes prevented or arrested by means which lower the vitality of the blood, as diarrhoea or smart purging. (6) The readiness with which ecchymoses form under the skin from very trifling injuries. The treatment consists in doing all those things that ordinary hemorrhages require, and, in addition, giving ergot and iron internally, and finally, it may be necessary to resort to the actual cautery when all other styptics have failed. In bleeding from the alveolus, long continued pressure is most often useful.

TUBERCLE AND ALLIED AFFECTIONS OF THE LUNGS.—Dr. D. J. Hamilton, (*British Med. Jour.*, Sept. 4, 1880), gives the results of researches he has been conducting for several years as follows: (1) Tubercle of the lung is always the result of irritation of an endothelium by a peculiar chemical agent, probably a ferment produced in the softening of a caseous mass. (2) The source of this caseous infection may be situated in any tissue. (3) Tubercle may be primary or secondary in the lung. By primary tubercle of the lung is meant a disease in which the tubercle forms the first and only lesion, the caseous source of infection being situated in some distant organ or tissue. By secondary tubercle is meant a disease in which the caseous deposit is the primary disease in the lung and where the tubercle is of secondary occurrence. (4) In the primary form the caseous ferment is brought to the lung from some distinct part by the blood vessels and the tissue first irritated by it is the endothelium of the alveolar capillaries. In the secondary form of the disease the lymphatics absorb the caseous irritant, and it is from their endothelium that the tubercle originates wherever it exists is invariably composed when fully developed of the following parts: (a) one

or more giant cells; (b) reticulum formed by processes given off from the sides of the giant cell on which nuclei lie as on any connective tissue; (c) a periphery capsule. (6) The giant cell represents an over-developed connective tissue corpuscle. The processes correspond with an attempt on its part to throw out an organized periplast. (7) The action of the irritant which gives rise to the abnormal activity of the blood-vascular or lymphatic endothelium is apparently evanescent, and when its energy is expended, the whole of the structures composing the tubercle develop into fibrous tissue. By so doing if the subject overlive the acute attack a cirrhosis of the lung, or other organ is frequently induced. (8) The commonest cause of the primary form is the softening of a caseous gland. That of the secondary is chiefly either a caseous catarrhal pneumonia, or chronic interstitial with bronchiectatic cavities containing caseous debris. (9) Tubercle, especially the secondary form, is a commoner disease of the lung in adults than in children or youth. The primary form is oftener met with in childhood. (10) Catarrhal pneumonia passes through three stages. The first is the acute or sub-acute in which the alveolar epithelium proliferates. The second is the stage of caseation in which the elements so formed, and which have accumulated in the air vesicle-caseate. The third is the stage of excavation in which the necrotic caseous matter softens and forms cavities. (11) The softening is a purely chemical process. (12) Small tubercles are commonly found in the neighborhood of the cavities; but they are usually invisible to the naked eye. (13) The development of tubercles in such a part has very little to do with its disintegration. They tend rather by their fibrous organization to induce cicatrization. (14) There is no such thing as "tubercular phthisis" in the sense of a primary tuberculous deposit leading to destruction of the lung substance by softening and excavation of the individual tubercles. They certainly caseate in the centre, but as soon as resolution occurs in the caseous part the resulting debris is absorbed and the capsule at the periphery contracts so as to obliterate the cavity. (15) Secondary tubercle of the lung is frequently associated with bronchiectasy. (16) There is a form of catarrhal pneumonia in which the caseous nodules are distributed

universally throughout the whole lung, and which is very apt to be mistaken for tubercle. It is not uncommon, and generally occurs in children.

MYXŒDEMA—WHAT IS IT? AND WHAT ARE ITS CEREBRAL AND NERVOUS SYMPTOMS?—Wm. A. Hammond, M. D., (St Louis *Clin. Record*, July, 1880) says: "Myxœdema is a disease which has for its patho-anatomical feature the deposit of a mucoid substance in various parts of the body, especially in the skin; or a degeneration and proliferation of the connective tissue. Probably both of these conditions exist in some tissues." The first account of this remarkable disease was given by Sir William Gull, October 24, 1873. At that time he read a paper before the Clinical Society of London, "On a Cretinoid State supervening in adult life in Women." Subsequently, Dr. Ord (*Medico-Chirurgical Transactions*, vol lxi, page 57), proposed the name "Myxœdema" for the disease already mentioned by Sir William Gull, and made an exposition of the symptoms and morbid anatomy of the disease, which has not yet been improved upon. On October 10, 1879, Dr. Dyce Duckworth reported cases of the disease, and Dr. Ord read another paper on the same subject. Also, Dr. Sanders, of Edinburg, mentioned the fact that several cases had come to his notice in practice, which he now recognized as cases of the disease under consideration. Dr. George H. Savage, in a paper entitled "Myxœdema and its Nervous Symptoms," published in the *Jour. of Medical Science*, Jan., 1880, p. 47, made an extended notice of this curious disease. This is another instance of a cerebral disease being brought to the attention of the asylum physicians by a medical man not connected with such an institution, and subsequently carefully studied by others similarly situated. It is thought that some of these cases will be found in our own hospitals, and we may hope, ere long, to hear from some of our own superintendents on this subject.

As a consequence of the mucoid deposits before mentioned, an appearance resembling that of anasarca is produced, with the exception that the tissue is resilient instead of pitting, on pressure; in fact, is not boggy as it is where water is infiltrated, as in ordinary œdema. The face has much the appearance, so far as the swelling is concerned,

that is produced by the toxic effect of arsenic. There is the puffiness of the eyelids, swelling of the lips and nose, and the skin over the malar bones is red with capillary congestion. Sir William Gull was much impressed with the "spade-like" appearance of the hands and fingers. The fingers were "clubbed" as they often are in those cases of heart disease in which there is an impediment to the return of the blood to the right side of the heart. The temperature of the body is in all cases below the normal standard.

Thus far all the instances of the affection reported have been in adult women, unless there is an exception in one case, reported by Dr. Savage, of a man. But in this case there seems to be some doubt as to whether the case is one of myxœdema.

The cerebral and nervous symptoms appear to be very decided. The intellect is notably weakened, and replies to questions are given in a sluggish and inexact way. The memory is imperfect, and the patient has a lack of confidence in herself, both as regards mental and physical power. The special senses are more or less perverted, and there are sometimes hallucinations or delusions. One case cited by Dr. Savage was distinctly maniacal, sleepless, incoherent, violent at night. The most ordinary mental condition met with is, however, a lassitude or stupidity resembling the state commonly known as acute dementia. Dr. Hammond has seen a case of whom the following is a general description: "Her appearance was that of a person suffering from general œdema, the consequence of kidney or heart disease. The lower eyelids and the face immediately below them, were turgid; the skin over the forehead was rough and swollen in spots; the nose was thick; the lips, especially the lower one, protruded like those of a person who has received a severe blow on the mouth; and the skin over the malar bones was not only thickened but for a space on each side, the size of a dollar, was red with a hectic flush. The neck was also greatly swollen, as were likewise the hands. All the fingers were "clubbed," but there was no incurvation of the nails. Further examination showed that the whole surface of the body was similarly affected. At no place, however, could pitting be produced by pressure. The general sensibility of the

skin was markedly diminished. Thus on the cheek the two points of the æsthesiometer could barely be distinguished when separated to the extent of an inch and-a-half, three times more than the normal distance, and at the ends of the fingers, where they should have been felt at the distance apart of the twelfth of an inch, they had to be separated five-twelfths of an inch before each was perceived. A like condition existed in the skin of the trunk and lower extremities. The ends of the fingers felt as if they had tight thimbles on them, she said, and her feet felt as if they were padded or cushioned. The various sensations of numbness were present more or less in the face, the end of the tongue, and the arms and legs.

The muscular power of the patient appeared to be decidedly weaker than the normal. The gait was staggering, the feet were not lifted clear from the ground, the grasp of the hands was weak, and the articulation was sluggish and indistinct. There was marked difficulty of co-ordination, both in the upper and lower extremities; although the patient could stand with her eyes shut, she walked with an uncertain step unless her eyes were directed to the ground, as is the case in locomotor ataxia. She could not put her finger on any part of her face unless she had her vision to guide her, and even with that assistance she did not readily and with certainty direct the movements of the hands. The other special senses besides the touch were all more or less deranged. Ophthalmoscopic examination showed the existence of neuro-retinitis in both eyes; objects looked blurred and appeared surrounded with a halo. Occasionally she had momentarily double vision. The pupils were of equal size, but slow to respond to light.

The hearing was diminished in acuteness, although the eustachian tubes were pervious. Probably the auditory nerves were diminished in sensibility.

The senses of taste and smell were also diminished in power, especially the sense of smell, which was almost wholly impaired.

The mind seemed quite deranged and the mental power was notably deteriorated. In answering the simplest question, she looked fixedly at the interrogator for a full minute before answering, either not comprehending the question or uncertain what reply to make. Her memory was also weakened; she slept

badly; often awoke startled and was not easily pacified. When it is added that her appetite was bad and bowels constipated; her urine contained a large excess of urates; that the pulse was slow and feeble, and that the animal temperature was never above 98° Fah., and often a half degree below this, a tolerably full description of the case has been given.

Dr. Hammond agrees with Dr. Savage in the opinion that the mental phenomena are the result of primary brain disease, probably owing to the deposits of the mucoid tissue around the cells of the nerve centres. In the case which Dr. Hammond had the opportunity of studying, there were symptoms of intellectual derangement before any swelling of the body and limbs was observed and before any sensory disturbances occurred.

The mucoid deposit has been found in the brain, so that it is not improbable that the morbid process may begin there; but the padding to which the nerves are subjected surely interferes with their healthy function, and hence it is quite reasonable to suppose that the phenomena of myxœdema are the result of both central and peripheral disturbances.

BLOOD APPEARANCES AFTER STARVATION.

—P. H. Van der Weyde, M. D. (*Medical Tribune* Aug. 15, 1880,) says that he examined the blood of Dr. Tanner at or near the conclusion of his fast. He had expected to find the corpuscles normal in appearance, but fewer in numbers; in this he was mistaken. There was scarcely a sound corpuscle in the blood examined. Instead of showing the normal, round, flat discs with a depression in the center, and of an average diameter of one thirty-six hundredth part of an inch, they were diminished in size so as scarcely to measure one forty-five hundredth part of an inch in diameter. They had a ragged, irregular appearance, and were covered with fungoid spores over their whole surface. The length of the spores averaged about one tenth of the diameter of the corpuscle, or about one fifty thousandth of an inch in diameter or length. None of the corpuscles were smooth; all had somewhat of the jagged appearance that blood corpuscles have when dried upon the slide. But these were examined while still floating in the blood plasma, and had not had a chance to dry. The ragged discs were examined with a Hart-

nack number 10 immersion objective. It appeared that those corpuscles that were most nearly covered with the spores, were the most shrunken, thus rather favoring the idea that the parasitical growth flourished at the expense of the corpuscle itself. The number of white corpuscles at the end of the fast was about one in one hundred, while at the end of three days after breaking the fast the number was nearly normal. At the third day after the fast the red corpuscles were in much better health, only about ten per cent. appearing at all damaged, and only about two per cent. showing the fungoid spores. It is not claimed that these pathological appearances are new. On the contrary similar appearances are found in the blood of typhus fever patients, in the blood of persons dying from consumption, and in the blood of persons of a decided scrofulous taint, but in a smaller proportion than was found in Tanner's case.

TUBERCLE—ITS SIGNIFICANCE.—Dr. D. J. Hamilton, (*The Practitioner*, Aug., 1880,) gives the significance of tubercle thus: (1) It is merely a form of connective tissue growth. (2) It is caused by an intense irritant acting upon the connective tissue, probably of the nature of a ferment produced in the softening of a caseous mass. (3) This is carried embolically into different parts of an organ, and stimulates them locally. (4) The tubercle at first has a close resemblance to a sarcoma, but when the irritation has subsided the connective tissue elements organize and give rise to fibrous tissue. (5) The ultimate destiny of the tubercle nodule is to produce a small fibrous tumor. (6) The presence of the giant cells is merely an evidence of the return of the irritated connective tissue element to their embryonic type. The difference between tubercle and sarcoma is thus quite distinctly marked off, for while at a certain stage of its growth tubercle does somewhat resemble a sarcoma, yet its whole tendency, after the irritation has subsided, is to form fibrous tissue. In the sarcomata, of course, it is different, their great distinctive feature being that the cells do not reach full development, but remain in an embryonic condition.

THE NATURE OF THE DIPHTHERITIC MEMBRANE.—There are few subjects in pathology concerning which there has prevailed more needless confusion than the nature of the

diphtheritic membrane. An exceptionally lucid explanation of many difficult points is given by M. Leloir, (*Archives de Physiologie—London Lancet*). He shows how from having held the opinion that the diphtheritic false membrane is a purely fibrinous exudation, pathologists have come to regard it as one of purely epithelial transformation. That the truth lies between these two views has been shown by experiment. Leloir, by the use of irritants, produced exudations on the fauces and pharynx in dogs, rabbits, and guinea pigs, observing the changes produced both by the naked eye and by microscopical examination at intervals varying from fifteen minutes to two or more days after exposure to the caustic. Thus he has been able to trace all stages of evolution of the false membrane. At the first the change is simply denoted by redness of the affected part, which sets in almost immediately after the application. But, already the superficial cells of the stratified epithelium exhibit notable changes. A clear space surrounds their nuclei; the cells are enlarged, but remain connected; whilst in the deeper strata there is evidence of their proliferation, and the vessels of the sub-mucosa are gorged with leucocytes. About an hour after the application the patch has assumed a semi-transparent opalescent appearance; the perinuclear spaces are enlarged; the cell protoplasm has become fibrillated and of a glistening character whilst the nuclei remain in part unchanged; in other parts increased in number but not in character. Thus in this stage the upper layers of what is now a distinct false membrane present a reticulated appearance, wholly due to changes in the epithelial cells themselves; but in a very short time—five to eight hours—this primary reticulum begins to disintegrate, leucocytes and a fibrinous exudation penetrate the mesh-work, until there is formed a thick white opaque membrane, that with which we are most familiar in diphtheria. In this third stage of its evolution the membrane can be resolved into two distinct parts; a superficial composed of fibrinous filaments, entangling pus cells, degenerate epithelial cells, and fragments of the primary reticulum, which still persists in a modified form in the deeper layer. In the fourth stage the membrane has assumed a yellowish grey color; the epithelium is almost entirely broken up, and replaced by the exuded

inflammatory material; and the final stage is that of disintegration of the false membrane which assumes a pulpy consistence and yellow color. If the inflammation has been very intense, the vessels in the submucous tissue are compressed, and necrotic processes of a more or less deep extent take place. On comparing these changes with those which take place in pharyngeal diphtheria, a perfect similarity is observed between them. In two cases of this disease he met with areas of exudation in the second or opalescent stage, and he found there the reticulum formed from altered cells, the nuclear proliferation, and the commencing invasion of the reticulum by fibrin and leucocytes, just as in his experimental cases; groups of micrococci being found in addition, and so, indeed in the latter and better known stages of the diphtheritic membranous formation, a close identity was found between it and that produced artificially upon the pharynx, fauces, epiglottis and vocalcords. In the non-stratified epithelium of the larynx and lower air passages there is no scope for the formation of the epithelial reticulum, and the false membrane then almost entirely composed of leucocytes and fibrine, a distinction which sufficiently accounts for the well-known difference in the degree of adhesion to the subjacent mucous membrane in this site as compared with the pharynx. The fact that in diphtheria the membrane will reform after being detached, whereas it does not in the case of simple irritation, is explained by the persistence of the cause of irritation—the specific poison—in the former case, and its absence in the other, and probably, also from the blood plasma being altered in diphtheria, and able more readily to traverse the coats of the blood vessels. Thus diphtheritic false membrane is not composed of material simply exuded from the blood alone, nor of alterations in epithelium alone, but both the blood and epithelial tissues have an important share in its production; the epithelial elements taking a far larger share in the regions where they are normally stratified than where they exist only as a simple layer; in the former regions it can be shown how the false membrane is primarily of epithelial origin; how it becomes more and more mingled with the products of exudation, which finally almost wholly compose it. M. Leloir declares that the same anatomical

identity underlies all membranous inflammations of the mucous membranes, whether this be in herpetic angina, in pellicular tonsillitis, mucous patches, chancres, etc. If this be true we have only another illustration of like effects following a multiplicity of causes.

Practical Medicine.

LARYNOSCOPE; ITS CONTRIBUTIONS TO PRACTICAL MEDICINE DURING THE LAST DECADE.—Dr. J. B. Bradbury (*British Med. Jour.*, Aug. 14, 1880) gives the following as the list of new facts brought to light by the laryngoscope during the last ten years. Dr. Marcet showed how we can detect tubercular disease in the larynx before there are any physical signs of its development in the lungs. When laryngeal phthisis is present there is a whitey, milky, probably purulent, mucous fluid in the laryngeal cavity. The diagnosis of laryngeal phthisis is of more value in prognosis than is generally supposed, for if phthisis can be detected in the larynx, we may be quite sure that the lungs either are or will shortly become tuberculous, if not obviously so at the time. It is also a well established fact that those cases of phthisis in which the larynx is early involved are less amenable to treatment than most other cases, and hence, we are compelled to give a more gloomy prognosis. Dr. Marcet also pointed out the importance of examining the epiglottis with the laryngoscope. Cases of simple and syphilitic inflammation of this organ may be mistaken for tubercular disease of the larynx unless an examination be made with the laryngoscope. In inflammation of the larynx the laryngoscope helps us to ascertain the presence or absence of membrane, which is of the highest importance, both as regards prognosis and treatment. About ninety per cent. of the cases of membranous inflammation of the larynx prove fatal, and of the ten per cent. of recoveries there are few that survive unless tracheotomy be performed. Indeed, if a child have laryngeal obstruction and membrane is seen in its throat, the chances are that it will either die or be tracheotomized, and not improbably both. On the other hand, cases of non-membranous inflammation of the larynx, even those in which dyspnoea is severe and protracted, almost invariably end in recovery, and the worst cases hardly ever require tracheotomy. Membranous in-

inflammation of the larynx is, in a vast majority of cases, diphtheritic and accompanied by albuminuria, whereas, in non-membranous inflammation of this organ the urine is seldom albuminous. Most cases of membranous inflammation of the larynx are of a diphtheritic character.

MEMBRANOUS CROUP; ITS RELATIONS TO DIPHTHERIA.—Dr. H. Z. Gill (St. Louis *Med. Jour.*, Aug., 1880) from his studies of this relation, concludes: (1) There is no distinction to be made from a microscopic examination of the exudate, which would lead to a division of membranous laryngitis into non-diphtheritic and diphtheritic or simple membranous croup or diphtheritic croup. (2) There is no distinction clear and decisive to be made based on chemical examination of the membranous product. (3) Every clinical manifestation by which a distinction might at first appear between diphtheritic and non-diphtheritic membranous laryngitis is unreliable in a differential diagnostic point of view. There is evidence tending to show the action of some unknown influence in some respects analogous to the so-called zymotic poisons, in the large majority of cases of membranous laryngitis. The nature of this cause, whether identical with that of diphtheria or only producing in the larynx, trachea and pharynx products indistinguishable from it by our present methods of investigation, is not decided, though the weight of evidence would seem to indicate a close analogy, but possibly not an identity with it in some of the purely laryngeal cases of membranous formation, such as are commonly termed idiopathic croup.

RHUS AROMATICA.—A. G. Springsteen, M. D. (*Amer. Med. Jour.*, Aug., 1880), recommends the rhus aromatica as the remedy *par excellence*, an invaluable specific, and the only known remedy in catarrh of the bladder and enlarged prostate that will effect a cure. The doctor says that it has reduced an enlarged prostate gland for a patient of his, and he is using the remedy on other patients with satisfactory results. Dose, a teaspoonful of the fluid extract three times a day.

ACUTE PHTHISIS—THE CURABILITY OF ITS ATTACKS.—Dr. T. M. McCall Anderson, (*Brit. Med. Jour.*, Aug., 1880) says that by acute phthisis he means an acute pulmonary affection, accompanied by high and con-

tinued fever, running a rapid course, and leading invariably to more or less destruction of lung tissue, if the patient survived long enough. Three varieties of this disease are: (1) Acute pulmonary tuberculosis. (2) Acute pneumonic phthisis. (3) Acute pneumonic phthisis, complicated secondarily with the development of grey miliary tubercles. The last two varieties he does not think can be distinguished during life. The first may be suspected when the disease sets in suddenly with high fever, great prostration, profuse perspiration, lividity and great acceleration of breathing, and when these symptoms are out of all proportion to the results obtained from a physical examination of the chest. In these cases, hitherto regarded as very hopeless, he has obtained excellent results from treatment of which the following is an outline: (1) Careful skilled nursing, with constant feeding and stimulants in small quantities often, from four to ten ounces, daily. (2) Each night a subcutaneous injection of atropine $\frac{1}{100}$ to $\frac{1}{50}$ grains. (3) Remedies specially adapted to the removal of fever: (a) Ice cloths to the abdomen. (b) Ten to thirty grains of quinine, in a single dose, once daily. (c) A pill composed of one grain of quinine, half a grain of digitalis, and from a quarter to three quarters of a grain of opium, every four hours. In addition to this, special symptoms, diarrhoea, constipation, and the like, must be treated on ordinary principles. Further the treatment must be adapted to the surroundings of each individual case.

FATAL CHOREA—THE CONDITIONS OF ITS OCCURRENCE.—Dr. O. Sturges (*British Med. Jour.*) reports a study of eighty cases in which death occurred in connection with chorea. From this he concludes that (1) Chorea, regarded as a disease of itself fatal, belongs almost exclusively to puberty, and especially to female puberty, its immediate exciting cause having distinct reference to conditions of unusual sexual excitement. (2) The force and influence of fright, worry, anxiety and despondency are seen in the course as well as in the origin of fatal chorea. (3) Acute rheumatism is a distinct and unquestionable cause of chorea in a small proportion of cases. (4) Fatal chorea strongly prefers the adult female; children very rarely die of it, and boys practically never. (5) Mental excitement, in varying degree, is met

with in a large proportion of fatal examples. (6) Vegetations on the auricular surface of the mitral valves, with or without similar deposit on the aortic valves, and sometimes with pericarditis, are met with in the great majority of cases dying of, or with, or shortly after, chorea. This condition is found equally among those that die with and those that die of chorea. In some of the most marked and typical cases of fatal cases of chorea the valves of the heart have been found absolutely healthy. (7) There is no other morbid condition, except that which concerns the heart, occurring with sufficient frequency or uniformity to be regarded as characteristic of fatal chorea.

DIURETIC REMEDIES IN THE TREATMENT OF BRIGHT'S DISEASE.—Dr. W. T. Gardner (*Brit. Med. Jour.*, August 28, 1880) says that after an experience of twenty-five years, he is of the opinion that the English practice in Bright's disease, and especially in acute and sub-acute cases, has been founded too much on the conception that the kidney, as an inflamed organ, must have, as nearly as may be, entire physiological rest; hence, diuretics are to be avoided, even though they must be replaced by a more perturbing practice. He does not claim that diuretics are alone sufficient, or in all cases expedient, but he does hold that the mere abstinence from diuretic treatment was opposed to the teaching of experience. The teachings of clinical experience, apart from any theory, show that, whenever the simpler diuretics will act at all in such cases as are usually treated by means of elimination, their action should be encouraged in preference to other modes of elimination. He uses diuretics and purgatives where they are specially indicated, or where diuretics will not act. Simple diuretic practice he thinks more in accordance with nature than the means usually employed. The reasonable regulation of the skin and of the bowels is an essential part of good treatment in most cases of Bright's disease, with or without dropsy. In cases of threatened uræmia, cathartics are sometimes the only method that can be trusted for immediate relief. This perturbative course is only regarded as a temporary phase of treatment, necessary in some cases, and to be supplanted as soon as possible by the more natural determination of the liquids toward the kidney. Hence, he preferred cream of

tartar alone, or combined with jalap or gamboge.

METHODS OF VACCINATION, PROPER AND IMPROPER.—The Committee on Hygiene in the Medical Society of the County of Kings (Proceedings of Society, Oct., 1880) concludes an excellent discussion of the above subject as follows: (1) Vaccinate with only pure virus—animal or humanized—every child when possible before five months of age. (2) The value of vaccination is lessened by lapse of time, so that revaccination is necessary between the tenth and fifteenth year. (3) It is wisdom to vaccinate before an epidemic occurs, before the public is excited and when virus can be readily obtained. (4) Children should not be vaccinated during an eruption of teeth, the prevalence of an epidemic of diphtheria, in the hot weather if it can be avoided, or when there is any skin eruption. (5) The causes of "spurious vaccination in the Confederate army," as investigated by Prof. Joseph Jones, are interesting in this connection, viz: (1) Lowered vitality; scorbutic condition. (2) From abnormal lymph, from persons previously vaccinated or having eruptive diseases. (3) Scabs or lymph undergoing decomposition, long carried about the person. (4) Mixing vaccine virus with that of true variola, as in persons having varioloid. (5) Virus from persons having erysipelas, pyæmia, gangrene and suppurating wounds. (6) Lymph scales, etc., from persons suffering from syphilis.

Nervous Diseases.

AFFECTIONS OF VISION FROM CEREBRAL DISEASE.—Dr. David Ferrier (*British Med. Journal*, Aug. 28,) says that the clinical evidence is at present insufficient to localize a distinct visual center. The visual center in the monkey included not only the angular gyrus, but the occipital lobe; for the lobes might be removed almost entirely without affection of vision, yet in order to cause complete and permanent blindness, it was necessary that the angular gyri and occipital should be destroyed on both sides. A portion of one visual center would in time suffice for vision with both eyes; hence extensive lesions might be found in the visual centers without obvious defect, without thereby disproving the existence of a visual center. From Dr. Yeo's and his recent investigations, it would appear that the hemispheres had a

double relation with the eyes. The connection of the angular gyri was mainly crossed; hence lesions here and in the corresponding medullary fibres, caused crossed amaurosis in amblyopia. Where there was a unilateral lesion of the angular gyrus and occipital lobe together, but not for each singly, hemiopia occurred and lasted for some time in the monkey, but not permanently. In this connection he described the lesions causing hemiopia, and analyzed the clinical cases recently placed on record. Taken by themselves, the clinical facts were not sufficiently definite to establish any casual relationship between cortical lesions as such, and hemiopia. But taken in connection with the experimental data, the fact of hemiopia from cortical or rather sub cortical lesions in the occipital region could be satisfactorily accounted for by destruction of the medullary fibers radiating into the angular gyrus and occipital lobe, not the occipital lobe only. A perimeter was shown of a case under the author's observation, where there seemed to be a progressive restoration from a condition of hemiopia due to a cerebral lesion. The facts of experiments on monkeys showed that recovery took place, and, therefore, it might be expected in man, even if it were more slow and less perfect. This referred to true cerebral hemiopia, and not to hemiopia depending, as it sometimes did, on lesions of the corpora geniculata or optic tract.

Diseases of Children.

CHLORAL AS AN ANÆSTHETIC IN THE MINOR OPERATIONS ON CHILDREN. — M. Bouchut, (*Gazette des Hôpitaux—Medical Press and Circular*), says that he uses chloral as an anæsthetic in the minor operations on children. He administers one, two, three and four grammes according to the age; two grammes might be given without danger between three and five years. The dose is given in four ounces of sweetened water, taken at once. In half an hour the child sleeps, and in an hour is perfectly insensible. This sleep lasts from three to six hours, and the child awakens as fresh as after natural sleep. Once insensibility arrives a great number of operations can be performed such as extraction of teeth, opening of abscesses, re-dressing of malformed limbs, etc., without any other inconvenience than that of leaving the children to sleep off the effects of the chloral

He says that he has administered this anæsthetic over ten thousand times without an accident.

Dermatology.

CHRYSOPHANIC ACID—ITS USES.—Dr. Sca-renzio, (*Chicago Med. Jour.*, Sept., 1880), advises the preparation of chrysophanic acid ointment as follows: Dissolve the acid in benzine and then mix with fat in the proportion of ten parts to forty of lard to prevent irritation over the adjacent parts; it is advised to circumscribe the affected part with a layer of collodion. (1) Chrysophanic acid is an excellent remedy in psoriasis. (3) It is useful in producing absorption of the papulo-hypertrophic syphiloderma, tubercula hypertrophic, the hypertrophy of the lupoid nodules; also without provoking solution of continuity of the superficies, especially if coadjuvated by the precedent abrasion. (3) In lepra it produces absorption of the tubercles and of the macula infiltrations. (4) It is logic to conclude that this remedy cannot protect against relapses. (5) The rapid absorption of the nodules and leprous infiltrations does not facilitate the eruptions of new manifestations nor does it disturb the general condition. (6) In lepra may be noted facts of alternated thermogenesis with relative increase of temperament in the affected parts; an increase that sometimes seems to involve also the sound superficies contiguous with the same side of the affected territory.

SKIN DISEASES CAUSED BY THE "HIDE POISON."—R. E. Kunze, M. D., (*Med. Trib.*, July 15th, '80), says that the hide poison the Portuguese use, the name for which is *venenaen pasta*, is a poison applied to the hides of various animals to keep them from the ravages of the *Dermestis vulpinus* or leather beetle. It is composed of arsenic, potash and phosphorus. Usually this poison is applied before the hides are exported, but some hides coming from Mexico during the cold season are poisoned here at the beginning of the hot season. The poison, i. e., the arsenic, potash and phosphorus, is dissolved or mixed with water in the proportion of one pound of the paste to three gallons of cold water. Solution of this strength is put into a large tub or vat, and the hides are drawn through the liquid and piled up to dry. Previous to re-baling, two men can poison a thousand

goats' skins in a day. The men work in a room at the temperature of 90° Fah. They only wear undershirts and pantaloons and, of course, in such a temperature they must drip with perspiration. They wipe the sweat with their hands and scratch their bodies as they feel like it, and then wonder that sores break out on the body or limbs. Many of those employed in this business are affected with large and spreading sores where the skin had happened to be abraded. It is questionable whether the wet treatment of the hides is as bad after all as the dry handling after having been poisoned. The dust of the arsenic which with the potash forms a white coat on the hide when it is dry, floats in the air when the hides are handled and must necessarily be inhaled. Hence the arsenical poison gets into the system very readily, and it is no great wonder that the men engaged in such business have irritable stomachs and constipated bowels, and that psoriasis and pityriasis make their appearance in due time. An important question to be settled, does any arsenic remain in the leather after the process of tanning has been fully completed? If not, then are we safe, but if on the other hand arsenic does remain in the leather, may we not more readily explain the peculiar eruptions that are found on some feet and limbs that are so nicely encased in kid boots.

Surgery.

POINTS IN THE SURGERY OF URINARY ORGANS IMPORTANT TO EVERY PRACTITIONER.—

Dr. Trevan (*London Lancet*) calls attention to the following points: (1) Retention of urine in children is always caused by stone, unless there is some mechanical obstruction to the escape of urine, such as a contracted meatus or foreskin. (2) Incontinence of urine, when diurnal as well as nocturnal, may be caused by a calculus impacted in the deep urethra. A stone would thus, in the one case, give rise to retention, and in the other to incontinence, for the reason that when in the bladder and at the meatus internus, it caused contraction of the sphincter which closely embraced it; advancing farther for half an inch down the canal, it acted as a gag, preventing the contraction, and allowing the urine to dribble away by its side. (3) Incontinence of urine in boys may be caused by a congenitally contracted meatus,

preventing the free escape of urine and setting up reflex action, resulting in the dribbling. (4) Dribbling of urine in men signifies retention not incontinence. There is at first retention, until the bladder is overfilled, when gradually the obstruction is overcome by contraction of the bladder walls, and then there is dribbling, the bladder still remaining distended. (5) When a catheter is introduced, if urine is expelled with violence and pain, not only through the instrument but along its sides between it and the urethral walls, there must be a calculus impacted in the deep urethra. (6) It is not possible to empty the bladder in every case, for the reason that it may be sacculated. (7) A gleet of more than six months standing implies an incipient stricture. (8) In cases of enlarged prostate suspect stone, for the reason that all the conditions necessary for its formation are present. (9) When a man complaining of frequent and painful micturition is worse during the day than at night, he most likely has stone. In prostatic cases of frequent and painful micturition, the patient is in much pain during the night. Calculus cases are most comfortable in bed; when they move about during the day they have pain from the movements being impressed upon the stone. (10) When a man, complaining of frequent and painful micturition, is worse when riding on horseback, or in a vehicle, suspect stone, the reason being the same as above. (11) See that the bladder of a woman in labor is empty before delivering the child. (12) The bladder of a woman, who has retention after childbirth, should be emptied with an elastic olivary catheter, the interior of which should be filled with a bougie. For want of this precaution the catheter will often become filled with mucus, and thus foil the nurse in efforts at evacuating.

PERSISTENT PRIAPISM NOT CONNECTED WITH LESION OF THE NERVOUS CENTRES.—

Dr. George L. Peabody (*New York Medical Jour.*, May, 1880) exhibits the reasons for accepting as facts the following: (1) Priapism is to be regarded as an occasional symptom of leucocythaemia. (2) It may come on without any assignable cause in a patient apparently in perfect health, though it usually attacks anæmic persons. It sometimes follows sexual intercourse, though this is to be regarded as exceptional. (3) It may

last from a few days to two months, and has lasted a longer time, though but rarely. (4) It is extremely painful, causing insomnia, nervous exhaustion, and general physical prostration. (5) It has occasionally yielded to profuse blood-letting. This procedure is not to be recommended except in robust subjects. Free incisions into the corpora cavernosa have occasionally caused its subsidence, but they are to be regarded as unsafe on account of the prolonged suppuration which has followed them. Medical treatment has proved useless. Local applications containing camphor have diminished the pain. (6) The prognosis is bad, both on account of the cachexia with which it is commonly accompanied, and on account of the fact that it is frequently followed by impotence. (7) The corpus spongiosum is usually not affected.

THE INDICATIONS FOR SOUNDING FOR STONE.—Dr. W. H. Ford (St. Louis *Med Jour.*, June 5th, 1880) gives the following indications for sounding for stone: (1) Where a patient, habitually passing gravel, has ceased to do so for some months, especially if unusual frequency of micturition, with pain during and after the act, and an occasional stoppage of the stream of urine be observable. (2) Whenever a calculus has been passed. (3) When dribbling of urine in children or adults is associated with painful and frequent micturition. Here the calculus may be lodged in the urethra. (4) In rebellious and somewhat doubtful cases of prostatic cystitis. (5) In hypertrophy of the prostate with partial atony and chronic cystitis, where the bladder symptoms are unduly pronounced. (6) In cases of long standing stricture, where chronic cystitis co-exists. (7) Where frequent micturition coincides with pain during and after the act, even although no blood, calculus nor gravel has ever passed, and where there may not be any history of nephritic colic. (8) In the typical cases where stoppage of the stream of urine, frequent urination by day, pain during and after the act, occasional bleeding, pain in the hypogastrium, inner sides of the thighs and perineum aggravated by rough exercise, and turbidity and offensiveness of the urine exist; and where in children most of these signs are associated with others peculiar to childhood, such as inguinal or umbilical hernia, prolapse of the rectum, pulling at the prepuce and frequent erections,

etc. (9) In the female sex the indications are modified by the proper anatomy and functions of the pelvic organs. Calculi in females are mostly phosphatic, being formed by concretion around foreign bodies introduced into the bladder by the deposition of urinary salts in the pouch of a cystocele, or occasionally by a similar mechanism after operation for vesico-vaginal fistula, where cicatricial distortions give rise to the formation of pouches from which the urine can neither be expelled nor washed out. Renal calculi pass without difficulty through the capacious, short and dilatable urethra of the female; stones of even an inch in diameter frequently do so in the adult. Unusually large stones, however, occasionally become impacted in the urethra both in children and adults, and attract attention by the ischuria and dribbling to which they give rise. Moreover, on account of the situation and easy drainage of the female bladder, crystalline deposits, or even gritty agglomerations of such deposits, altogether fail to induce any degree of vesical irritation at all comparable to that observed in the male sex.

IS THE PUTREFACTION OF WOUND SECRETIONS THE SOLE OR COMMON CAUSE OF BLOOD POISONING?—Dr. L. A. Stimson (*Archiv. Med.*) answers this inquiry in the negative for the following reasons: (1) The contagiousness of erysipelas and its frequent independence of an open wound indicate a cause other than putrefaction. (2) The contagiousness of pyæmia, its comparative limitation to crowded surgical wards, its greater frequency in winter and its relatively tardy appearance are not compatible with the theory of causative putrefaction, while its rarity after simple wounds, its frequency after those associated with much laceration and bruising of the tissues, and its more common occurrence in persons reduced by habitual exposure or dissipation, point toward an auto-production of the poison dependent upon altered vitality of the tissues involved in the injury. (3) A variety of blood poisoning characterized by a rapid onset and extreme severity is seen, especially in military surgery, under physical conditions which are not only unfavorable to the origin and spread of a putrefactive process, but are generally considered a guarantee against septic complications; e. g., soldiers exhausted by forced marches and dispirited by defeat, operated

on in the open air, lying in tents or farm buildings, often at seasons when everything is frozen, furnish an enormous percentage of mortality from this cause and die even before their wounds have begun to suppurate. (4) The danger of post-mortem inoculation, a septicæmic affection, varies with the cause of death, being greatest after puerperal or surgical poisoning, and in these and other cases it diminishes with the appearance and progress of putrefaction. (5) Experiment has shown that to render a rabbit septicæmic, injections of ten to thirty drops of putrid blood are required, and even these are not uniformly successful; but the desired effect can be produced speedily and certainly by the injection of the millionth part of a drop of fresh blood taken from another animal dying or just dead of septicæmia; moreover, if this latter be allowed to putrify it loses its virulence. (6) Vulpian produced by the injection of a small amount of the extract of bitter sweet under the skin of a frog, a septicæmia identical with that produced by the similar injection of a true septicæmic virus, and he got a like result from the action of a corrosive substance, cyclamine, upon the œsophagus. (7) By exciting an acute attack of indigestion a German pathologist has recently caused pyæmia and putrefaction of the discharges of the wounds in dogs recovering under antiseptic treatment from injuries to their bones. (8) Pasteur has described a septic vibrio that is entirely distinct from the vibrio of putrefaction, and a vibrio of purulent infection which somewhat resembles the latter. These vibrios are found in abundance in ordinary water and in the air in the form of corpuscle germs, and he claims that the only reason why they do not seriously complicate every wound is that the vital action of the tissues is unfavorable to their development and multiplication. (9) It is a fact daily observed that purulent collections of extreme fetidity may exist in the body without giving rise to blood poisoning. It is evident that there is something to be guarded against in the treatment of wounds besides putrefaction, and this something is in the nature of a specific poison, which, there is reason to believe, may be generated in the body *de novo* and which certainly is transmissible.

KEYES ON LITHOLOPAXY.—Dr. E. L. Keyes (*Annals Anatomical and Surg. Society*, June,

1880) says that his experience thus far with this procedure warrants the following conclusions: (1) Litholopaxy is applicable to all stones in the adult capable of being broken by an instrument which can pass the urethra. Multiple stone is rather an advantage than otherwise where there is much calcareous material. (2) Stricture does not contra-indicate the operation. If near the meatus, it may be cut at the time of crushing the stone; if deeper, it should be cut or stretched by preparatory treatment. (3) Prostatic hypertrophy is no bar to the operation so long as solid instruments of reasonable size can be made to enter the bladder without the use of force. (4) Age is no bar to the operation. (5) Inflammatory conditions of the bladder do not contra-indicate the operation, although undoubtedly a reasonably healthy bladder furnishes a better field. (6) Chronic Bright's disease, heart disease and general debility do not so seriously contra-indicate this operation as they do others upon the urinary tract, and may be almost disregarded, unless so far advanced as to make any other surgical manœuvre upon another part of the body undesirable. Pre-existing pyelitis is the gravest complication which can (immediately) compromise the success of the operation. (7) The operation should not be undertaken without a long previous experience upon the dead body, or a small experience upon the living subject with old-fashioned, slow lithotritry without ether. (8) A lithotrite which cannot be made to clog, will not readily catch the bladder, and as small as will satisfy the requirements of the stone as to size and hardness, is desirable. The tubes may be straight or curved, as large as the urethra will admit comfortably after cutting the meatus, if necessary, and any efficient washing bottle can be used which may suit the operator's fancy, if it be a bottle which will not allow air which may have accidentally entered the bladder to remain there. (9) A surgeon should not undertake the operation unless he feels confident that he can recognize the fact at once if he catches the bladder, so that he may drop the fold of mucous membrane immediately without bruising it.

A NEW OPERATION FOR RADICAL CURE OF HYDROCELE.—Bernard Barton, M. D., (*Buffalo Med. Jour.*, July, 1880) thus describes what is called a new operation for the radi-

cal cure of hydrocele. The operation consists in an incision of from three to four inches in length in the scrotum over the centre of the hydrocele tumor, extending through the scrotal subcutaneous tissues until the sac of the tumor is reached and exposed. The loose connective tissue is then separated from the sac to the extent of about an inch on either side of the line of incision, exposing about one-third of the circumference of the tumor. The distended sac protruding into the wound renders this last step very easy of accomplishment. Into the most depending part of the tumor thus exposed a fine trochar and canula is introduced and the fluid is drawn off. The entire wound is then left to close by granulation. It is intended that the air shall be entirely excluded from the sac, and it is preferable that the incision should be made under antiseptic precautions and to continue them during its subsequent treatment. The idea upon which this operation is based is that of identity and continuity of the connective tissue composing the sac with the less dense connective tissue which would be described as lying *outside* the sac; and that by exciting inflammatory action in this *outside* connective tissue it will extend to and involve that composing the sac by continuity of structure. By wounding and disturbing the parts in close relation to the sac, we thereby apply an irritant upon its outer surface, and by the resulting inflammation induce those changes in the vascular system of the part upon which would seem to depend the restoration of the normal secretion of the tunica vaginalis. Admitting that the changes resulting from the inflammation principally affect the vessels supplying the part, it would seem by this method that we could quickly and with certainty induce those changes by acting thus directly upon the tissue in which these vessels are imbedded.

THE PRINCIPLES WHICH SHOULD GOVERN THE PERFORMANCE OF THE INTERNAL URETHROTOMY.—Sir Henry Thompson (*British Med. Jour.*, Aug., 1880) gives the following as a representation of the views held by all good surgeons on the above subject: (1) The necessity for a physical examination before operating, to detect and estimate the narrowed portions of the urethra. This is best accomplished by means of a series of metal bulbs on slender stems, taking care

not to regard as diseased changes those points at which the urethra itself is naturally only slightly dilatable. These bulbous exploring sounds I have invariably used, advocating them as essential to diagnosis in my first work, twenty-five years ago; and I still prefer them to any other, as safer, less irritating and not less efficient than more complex instruments which have been devised. (2) The necessity for accomplishing a complete division of all the morbid tissue constituting the structure by an incision carried through it, no matter what part of the urethra or how much of it is involved in the disease. As a general rule, I think this is most efficiently completed by a slender blade carried beyond the structure and made to cut from within outwards; this latter proviso being, however, an open question. The important point, however, is that any alleviation of the patient's condition attained by operation, will be transitory, if any part of the narrowing be left undivided. (3) I regard it as essential, after such division, to place at once a full sized catheter for some hours in the bladder, to insure a fresh outlet for the urine and prevent all possibility of extravasation of urine into and through the incisions thus made. (4) The necessity for passing full-sized bougies subsequently at occasional intervals, in order to effect free distension of the walls of the urethra, which lie in almost constant apposition, and so to prevent reunion of divided surfaces by the first intention.

A CLINICAL STUDY OF ELBOW JOINT FRACTURES.—Dr. George R. Fowler, (*Annals Med. Surg. Society*, Sept., 1880) tabulates twenty cases of elbow joint fracture, and from them deduces the following: (1) As to the age of the patient, most of his cases occurred in children, or during the age of recklessness. (2) As to the character of the accident, all but two were the result of falls. When the exact manner in which the patients fell could be ascertained, it was noticed that in a fall with the fore arm extended, the patient striking upon his hand, a fracture of the external condyle ensued. (3) As to the character of the lesion, the majority of the cases were fractures of the internal condyle. (4) As to dressing, in the main fractures into and about the elbow joint, after reduction, require no dressing beyond a simple roller bandage. The more

elaborate the dressing the worse will be the result. (5) As to passive motion, the only way to escape ankylosis is to move the limb as early as circumstances will allow, as often as is consistent with the amount of inflammation, both intra-articular and extra-articular, and not to abandon it until all motions, normal to the joint, can be performed without the occurrence of pain. To put up a limb in rigid dressing and maintain it for three or more weeks without attempting to move it, to have no concern as to whether or not the joint is becoming indissolubly welded together in one osseous or fibrous mass, he believes to be a practice fraught with danger to the surgeon's reputation, and last but not least to the surgeon's pocket. (6) As regards motion, early, daily, and sufficiently protracted passive motion in suitable cases will almost surely lead to a perfect restoration of the joint in all its normal movements. With anæsthesia to aid us there can be no doubt as to the course we should adopt. In only one of the twenty cases reported was there impairment of motion. (7) As regards function, the movements of flexion, extension, supination and pronation may be present after these fractures, and yet an important function, in the majority of cases, be interfered with or entirely lost, and a deformity of the arm produced. This deformity consists in the absence of the normal angular projection which the forearm bears to the arm as the patient stands upright, with the upper extremities held in what is known as the anatomical position. This angle, although varying somewhat in different individuals, is presumably present in most, and is the means of the proper carrying function, and of preventing whatever is carried in the hand, in the anatomical position referred to, from interfering with locomotion. The loss of this angle, therefore, necessarily entails a loss of carrying function and a deformity, and in the majority of his cases this condition exists. As to the cause of the deformity, the writer says that there was the least deformity in the cases that were least treated. He suggests that cases of fracture of the variety under consideration be treated by a roller bandage, retaining the proper relation of the fragments, fastening the arm to the side of the body in a position of easy rotation outward, and allowing the forearm

to project in what may be described as the beggar's position. If passive motion is rigidly and conscientiously enforced, it will matter but little whether the arm is semi-flexed or not, but it may be allowed to assume the position, in relation to the arm, most comfortable to the patient.

PRIMARY AND SECONDARY AMPUTATION—WHICH?—This question is variously answered by different surgeons. Prof. Richet (*Union Med.—Medical Times and Gazette*) tells us that in the earlier part of his career he practiced primary amputations. As a result most of his patients died. On communicating his ill fortune to Malgaigne, the latter told him that he had gone through the same experience. He said that investigation had convinced him that the mortality from primary amputations was eighty-six per cent. The reasons for this mortality Prof. Richet gives as follows: "Whenever an individual has undergone a violent injury, his nervous system is greatly shaken by it, his pulse is depressed and his temperature notably lowered. Further, the circulation is delayed to such a point that the soft parts soon assume a violaceous color and then become gangrenous, at least in places. Soon there supervene intra-muscular tumefactions and subcutaneous emphysema, the precursor of sphacelus. In these cases we have functional disturbance of the nervous system and of the circulatory system, and to these primary amputation adds the shock of mutilation, and a considerable moral disturbance. If, on the other hand, it is decided to make a secondary operation, there will necessarily be a considerable number of fatal cases; but these belong to the class that would have died under an immediate amputation. Others, fewest in number, will traverse the first accident with success. The nervous system recovers itself little by little; the circulation regains strength, and the temperature rises; and, as a consequence, two or three days afterwards, normal inflammatory phenomena begin to appear. Is this then the moment at which amputation will have greatest chance of success? Not yet. Such at least was the opinion of Velpeau and of Roux, with which Richet coincides. They never operated before the fifth or sixth day, and this is also his habit of proceeding."

Obstetrics.

RULES FOR THE USE OF FORCEPS.—Dr. A. N. Simpson, (*Edinburgh Medical Journal*, Oct., 1880,) formulated the following rules for the use of the forceps:

(a) *Preliminary Rules.*—(1) Be perfectly assured of their necessity. (2) Tell the relatives always; the patient generally. (3) Be cautious in your prognosis regarding the infant. (4) Always empty the bladder and return. (5) Place the patient on her left side; her body across the bed with nates at edge of it, (sometimes it becomes desirable to turn the patient on her back during the extraction.) (6) Warm and grease the instrument and, if necessary, lubricate the maternal passages. (7) Anæsthetize the patient. (8) Assure yourself of the precise position and relations of the head, introducing the hand as far as is necessary.

(b) *Rules Regulating Introduction of Forceps.*—Insinuate, do not force in the instrument, and withdraw it partially when any great resistance offers. (2) Keep its point always in contact with foetal head. (3) Introduce each blade so that its concavity adapts itself to the convexity of the foetal head. (4) Enter and apply each in the proper axis of the pelvis. (5) Introduce the instrument during the interval between the pains and always suspend the attempt during the continuance of pains. (6) Introduce first the left blade which has traction rod and handle attached to it, and is stamped, left, lower, first. (7) Hold it in the left hand, and use the fingers of the right as a guide. (8) When it is fully introduced, keep it in situ with thumb and two last fingers of left hand and use again the first two fingers as guides. (9) Introduce the right blade with the traction rod swung forward, pointing it at first toward the hollow of the sacrum. (10) Carry it round the head till it comes into complete antagonism with the left. (11) Slacken the left rod, swing back the right one, and adapt it to the traction plate. (12) Adapt, but do not tighten the fixation screw.

(c) *Rules for Working the Forceps.*—(1) Grasp application handles, and fix screw at the point where safe and sufficient compression is secured. (2) Make traction with traction handle during pains; or if no pains are present, at intervals. (3) Keep the traction rods parallel with the shanks. (4) After each traction slacken, but do not

unship the screw, and examine the progress of the head. (5) Where rotation has to be aided effect rectification with the application handles. (6) Support the perineum carefully with the left hand. (7) Make the head distend and pass over it very slowly, allowing the uterus itself to complete as often as possible the expulsion of the head, and always that of the body. (8) Immediately after the birth of the head slacken the screw, free the right rod, and remove the right and left blades successively.

Diseases of Women.

POST PARTUM INTRA-UTERINE INJECTIONS.—Dr. T. F. Prewitt (*St. Louis Courier of Medicine*, Sept., 1880,) concludes an interesting paper with the following propositions: (1) Intra-uterine injections in puerperal septicæmia while of immense value, are not free from danger, whatever precautions are taken. (2) Gestation does not modify the susceptibilities of the uterus in such a way as to prevent the most profound reflex impressions upon the nervous system upon the invasion of its cavity. (3) The admission of air into the uterine sinuses, and thence into the general circulation, is of doubtful occurrence under any circumstances, and most improbable after the contraction of the womb has taken place. (4) Pulmonary embolism, the result of puerperal thrombosis, occurs only after the retrograde process has softened, and led to the breaking down of the thrombus—probably not earlier than the nineteenth day after delivery, and usually at a much later period. (5) Puerperal pulmonary emboli are derived from thrombi in the femoral or iliac veins, or the veins of the leg. (6) The passage of fluids through the fallopian tubes in the post partum uterus is highly improbable, since the cervix is always sufficiently patulous in this condition to permit of its ready reflux, when an ordinary catheter or nozzle of a syringe is used; while the tubes themselves are perhaps never dilated as occurs in certain non-gravid states. (7) Of all the dangers connected with intra-uterine injections, post partum shock is most dreaded because most likely to defy all precautions.

Ophthalmology.

ABSCESS NEAR LOWER EYE-LID OF DENTAL ORIGIN.—Dr. Parinaud, (*Archiv. Generale—Med. Times and Gazette*,) sums up an interesting paper on this subject as follows:

(1) Alterations in the temporary or permanent teeth may induce suppuration of the lower eye-lid opposite the orbital border, or in the region of the lachrymal sac, where it sometimes simulates lachrymal tumor or fistula. (2) The course pursued by the pus which originates in an alveolo dental periostitis being inter-osseous is difficult of detection, and is not always in the same direction. (3) A variety of this periocular suppuration is special to children of about five or six years old. The arrangement of the alveoli of the first and second dentitions explains this predisposition, and explains the occurrence of these suppurations which may become complicated with necrosis of the orbital border. (4) In the adult, besides the cases of lachrymal tumor, properly so-called, which may sometimes be attributable to a carious tooth, suppuration at the great angle of the eye may be observed under two conditions. Pus originating in an alveolus may penetrate into the maxillary sinus, induce inflammation there, and give rise consecutively to the formation of a cutaneous fistula at the inner angle of the eye. In another set of cases, probably much more frequent, the lachrymal passages are free, and the sinus is not implicated, and the connection is not visible which unites the abscess or the fistula to the dental alteration. Vascular canals which open constantly by one or two orifices on the nasal process of the superior maxilla, and which communicate also with the foramina of the alveoli, explain the development of these suppurations. (5) In suppurations of the lower eye-lid, in necrosis of the orbital border and in suppurations or fistula at the larger angle of the eye, we should therefore ascertain whether the cause of the accidents observed is not a bad tooth, the extraction of which is the primary indication of treatment.

THE EYE—ITS PATHOLOGICAL RELATIONS TO THE UTERUS.—Dr. A. Delienne, (*Amer. Jour. Obstet.*, July, '80,) gives two instances apparently illustrating the connection between eye and uterine troubles. The disease of the uterus acts as the exciting cause, the predisposition being due to syphilis or rheumatism. The following is the general sequence of events: A young girl, fourteen or fifteen years, pale, lymphatic, with circles about her eyes, seeks advice for pain in one eye, with impaired vision. Sometimes

but much more rarely both eyes are affected. The sight in this eye has been impaired for one or more years. It often becomes red and painful, and then these phenomena disappear to begin again some days later. The pupil is small and distorted, atropine has no effect upon it. The iris is slightly discolored and bulges forward into the anterior chamber. There is injection more or less marked, surrounding the cornea; the eye is hard and tender to the touch. The diagnosis is chronic relapsing irido-choroiditis. As to etiology, the girl is not regular or has never menstruated. She has lived in damp quarters, and has pain in the knees, elbows, shoulders, etc. Her parents are one or both rheumatic. Iridectomy is practiced; the general health is built up, menstruation becomes regular under treatment, and recovery follows. If synechia have glued the papillary margin to the anterior segment of the capsule of the lens, relapses of iritis or irido-choroiditis are frequent, and their repetition may lead to total disorganization of the globe. These recrudescences always coincide with a menstrual epoch. Iridectomy upon whatever theory performed does not secure perfect immunity against further trouble unless the predisposing causes and those which occasion the relapses are attended to at the same time.

A NOVEL MODE OF TREATING GONORRHEAL OPHTHALMIA.—Mr. George Critchett (*London Lancet*) says that formerly every case of gonorrheal ophthalmia from direct contagion that has come to his personal knowledge, uniformly resulted in the loss of the affected eye. In May, 1878, a marked acute case of this disease came under his notice in the person of a girl two and one half years old. Finding it impossible to make any application to the conjunctiva, he passed a small director under the upper lid until it touched the edge of the orbit. Then, with a sharp pointed bistoury, he completely divided the lid perpendicularly as far as the margin of the eyebrow. In order to more completely uncover the cornea, he separated the two angles of the divided tarsus and fixed them with fine sutures to the skin of the eyebrow. The immediate effect of this was to diminish the redness and swelling of the lids and conjunctival membrane and completely to expose the surface. After the usual applications to the conjunctiva the

symptoms gradually abated and the eye completely recovered. Then placing the child under an anæsthetic, the edges of the divided lids were pared and brought together with fine sutures. Good union occurred, and the lid performs its functions with scarcely any deformity.

PRIMARY GLAUCOMA—ITS PATHOLOGY.—Dr. Priestly Smith (*Brit. Med. Jour.*, Sept. 4, 1880,) thinks that the fundamental and essential cause of glaucoma is an insufficiency of space between the ciliary processes and the lens. If this abnormality were present, any condition that tended to promote venous turgescence, arterial hyperæmia or increased secretion within the eye might become an exciting cause of glaucoma. The reasons for this view are outlined as follows: The intra-ocular fluid escaped from the interior of the eye at the angle of the anterior chamber. In glaucoma this angle was compressed or closed; hence, the excess of fluid within the eye and the increase of tension. Experiment showed that when the vitreous pressure was raised slightly above the aqueous pressure, the ciliary processes were driven forward against the periphery of the iris, and the angle of the interior chamber was closed thereby, precisely as in glaucoma. This suggested that the starting point of glaucoma was some condition which raised the vitreous pressure slightly above the aqueous pressure. In health, a current of fluid passed constantly from the vitreous to the aqueous chamber through the space which separated the margin of the lens from the ciliary processes, viz.: "circum-lental space." Narrowing of the circum-lental space would tend to raise the vitreous pressure. Circumstantial evidence favored the idea that narrowing of the circum-lental space was actually the starting point of primary glaucoma. The examination made, recently, of a series of healthy and glaucomatous eyes had lent support to the foregoing theory by showing, (a) that in the healthy eye the diameter of the lens increased with age; (b) that this increase was accompanied by a diminution of the circum-lental space; (c) that in certain stages of glaucoma the circum-lental space was as a fact abnormally narrow. Measurements in three cases showed that the lens of the glaucomatous eye had a greater diameter than the lens of the healthy eye at the same period of life. Prof. Donders says: (1) In

inflammatory cataract during life it was directly seen that the lens was advanced and pressed against the pupillary parts of the iris. Here the adhesive opposition would suffice for impeding the free communication between the peripheric part of the posterior chamber and the anterior chamber. In the posterior there might be higher pressure, accounting for the dilatation found by Dr. Baily, the atrophy of the ciliary processes and the pulling of the periphery of the iris in the direction of the ligamentum pectinatum, with inflammation and adhesion to the cornea near the canal of Schlemm. (2) The dilatation of the peripheric arteries of the iris seemed to be in relation to the visible dilatation of the anterior ciliary arteries. (3) The lens seemed swollen in every acute glaucoma. Dr. W. Bowman stated that we now looked upon the aqueous chambers of the eye, not only as a space within which the relative position of certain optical structures and their needful movements were provided for, but also as an arrangement securing a nearly equable elastic support for all the parts within the globe under varying nervous and vascular conditions. The aqueous humor seemed not to be a stationary fluid or quite a fixed quantity. It was being ever secreted and ever in course of being removed through the rim of the anterior chamber from the receptacle which it occupied. It also served, probably, for the more effectual nutrition of the neighboring non-vascular vitreous body and lens. By it the intra-vascular and intra-ocular pressures were held in mutual harmony within certain limits, the limits of health. When this harmony was impaired by an arrest of the due escape of aqueous humor through Schlemm's canal, the intra-ocular tension rose and the secondary evils of glaucoma followed. Most interesting questions still awaited solution, as to how, under different circumstances, the balance of elasticity was lost; and especially how that adhesion of iris to cornea and consequent mechanical closing up of the rim of the anterior chamber was brought about, which in many, though not all, of the cases of established glaucoma seemed to account for the high tension.

DIABETES.—Maple sugar, eaten freely, is now the latest cure. Dr. H. Brubaker reports a case that was successfully treated by this means alone in the *Clinical Record*.

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Ligation of the Gluteal Artery for Traumatic Aneurism—Colles' Fracture of the Radius—Death and Autopsy.

By THEODORE A. MCGRAW, M. D., OF DETROIT, MICH.

IT is rarely that we find in one patient so many points of especial interest to the surgeon as were found in the case of John Broeck, recently deceased at St. Mary's Hospital, in this city. He was a carpenter by trade; sixty-two years of age; and, previous to his injury, in good health. On Oct. 29th, 1880, he fell from the roof of a barn into a manure heap, some twenty-four or five feet below, and was immediately afterwards carried to the hospital. As it happened I did not visit the hospital that day, but he was seen by my assistant, Dr. Jno. Boice. On Oct. 30th I saw him for the first time, and carefully examined him. I found him in bed, although he said that he had walked immediately after the accident. His temperature was 99° F.; his pulse, 110; his respiration, 35 in the minute. He had a cough especially noticeable when he was turned on the right side. Percussion was normal, except as it revealed a very large heart, but auscultation revealed subcrepitant râles over both lungs. He seemed to be suffering from nervous prostration, and though apparently sane and able to answer questions intelligently, nevertheless exhibited something like cerebral apathy which I did not like. The right radius was the seat of a Colles' fracture, which was evidently not associated with the ulnar dislocation so ably described by Dr. Moore, and so frequently found. The deformity was, however, quite typical, and a diagnosis was based upon it alone. The severest lesion, aside from nervous concussion, caused by the fall, was situated on the left buttock. This was enormously swollen, exceedingly tense, abraded of its epidermis, and very much discolored—the blue and mottled appearance, indeed, suggested early

gangrene of the integument. The tense swelling, which permitted no indentation by the finger, suggested at once arterial hemorrhage, and the application of the ear over the region of the gluteal artery revealed a murmur which could come in this case only from a ruptured artery. The constitutional condition of the patient was not favorable to any operative measures; but, on the other hand, the threatening appearance of the injured buttock made me dread the inevitable hemorrhage when ulceration or abscess should supervene. It would have been possible to postpone an operation, indeed, for several days before this would take place; but during these days the inflammation around the injured vessel would inevitably make it soft and friable and increase enormously the difficulties of its ligation. The patient besides might be in an even worse general condition than now. Discussing these points with my class of senior students I postponed operations until the next day. On the morning of Sunday, Oct. 31st, we found the patient better of his cough, and with a pretty fair pulse, though still inclined to be dull and apathetic. Drs. Farrand, Heaton, Shurly, Webber, Walker, Wyman, F. W. Brown, Boice and others, together with a number of the senior students of the Detroit Medical College were present, and examined the patient. There was no dissent among the physicians present as to the propriety of an operation. I had prepared a stick with a rounded knob for the purpose of compressing the internal iliac artery through the rectum, which Dr. Walker kindly took charge of. When he had placed it in position in the gut, the patient being under the influence of æther, I satisfied myself by auscultation that the circulation through the gluteal was perfectly controlled. I then made an incision directly over the artery, as it issued from the pelvis, just large enough to admit a finger,

The finger was then forced without any difficulty through the great gluteal muscle and the coagula underneath it to the edge of the great sciatic foramen. At this juncture a sudden movement of the patient displaced the stick in the rectum, and I felt the artery spurt under my finger. It was an easy matter to compress it, to enlarge the wound by a cut six inches long in the direction of the muscular fibre, and to turn out the clotted blood. Lifting the finger then just enough to show the bleeding point, I thrust a tenaculum through the artery, twisted it slightly and lifted it up. A double ligature was then carried under it by an aneurism needle, and the vessel was tied on both sides of the bleeding point. A small branch of the sciatic which bled, was also secured, the large cavity was stuffed with carbolized oakum, and the patient put to bed. The whole amount of blood lost during the operation could not have exceeded a couple of ounces. It was remarked that the clots removed, although undoubtedly of arterial origin, were black as tar. I have frequently noticed this in arterial extravasations, especially of contused wounds, but have not been quite satisfied as to its cause. It is probably due to the absorption of carbonic acid from the bruised and broken capillaries. After the operation the patient seemed for a short time to do well; his hands and feet were warm, and his pulse good. He soon awoke to a sense of pain, and was given an eighth of a grain of morphine. This was at half past eleven in the morning; at 4 P. M. when I saw him again, his pulse had become quick and feeble, and his respiration hurried. The pupils of his eyes were strongly contracted, and he could be aroused only with great difficulty. At half past four he died apparently from cerebral oppression. At no time during his illness could he pass his water. It was drawn by a catheter three times a day, and was always clear and free.

Autopsy, at 12 M. on Monday, nineteen and a half hours after death, was made under the superintendence of Dr. H. O. Walker by Mr. A. Campau. Rigor mortis, well marked; heart, very large, but valves perfect; clot, white and firm, as large as horse-chestnut in right auricle; old fibrinous deposits on wall of heart and in pericardial sac, but no adhesions; lungs, large and healthy; abdominal viscera, all normal; cranium, opened last of all, was very thin and firmly adherent to

dura mater. This membrane had been completely severed by the saw, and remained attached to the calvarium. When the skull cap was torn away, the brain, excepting the cerebellum, broke from its attachments, and fell about two feet on to the floor. It was so firm in texture that it did not even break, but looked like a brain that had been preserved in alcohol. A large quantity of serum, hardly tinged with blood and amounting to several ounces, ran into a puddle out of its ventricles. This serous effusion is supposed to have been the immediate cause of death. The internal iliac and the gluteal arteries were carefully preserved; the latter was hard and brittle with calcareous deposit. The rupture was found between the two ligatures just outside of the pelvis. It involved about a third of the circumference of the vessel; extravasated blood was found along the course of the left iliac arteries and widely diffused under the integument of the back and scrotum.

Not the least interesting feature of the post mortem was the opportunity afforded of examining a recent Colles' fracture. The ulna was found in its place. No ligaments anywhere around the joint were broken or injured in the least, neither was there any extravasation of blood near the fracture. The lower end of the radius was broken into four fragments which were, however, held together by the periosteum and ligaments. They were broken off the shaft just one-half inch from the articular surface, and were inclined back with the characteristic deformity. It was with difficulty that they could be brought into proper apposition and only by first making traction, and then bending towards the palmar surface. It was evident that they were held in their acquired position by bony impaction and by nothing else. It was difficult even when the bones were bare of flesh to get much crepitus, owing to the spongy consistency of the bone at that point. The lower end was in four pieces, of which three formed the dorsal rim of the articular cavity. The fracture had been produced undoubtedly by the sudden pressing backwards of the hand and wrist upon the posterior edge of the radius.

It was remarked that the ribs were extremely fragile, and could, one and all, be broken by slight pressure of the thumb and fingers of one hand.

Ligation of the gluteal is an exceedingly

rare operation. This is due in all probability to a theoretical exaggeration of its difficulties. It would be interesting to know how much of this fear is the result of the absurd and exaggerated report of John Bell, in relating the first case of gluteal ligation. I have not the original in my possession, but as quoted by Pancoast in his work on operative surgery (1844), I read that "the patient came near bleeding to death," after the first incision of eight inches, "although in a moment twenty hands were about the tumor, and the bag was filled with sponges and cloths of all kinds." The operator "then run the bistoury upwards and downwards, and at once made an incision two feet in length," by which he was enabled to secure the vessel.

It may seem ungracious to criticise dead veterans, but one can not help wondering what kind of discipline surgeons maintained at that period among their assistants, when it was permitted them to thrust their hands into a wound in that wild fashion. We must admire, however, the breadth of buttock of those ancient Britons, which could enclose a cavity into which twenty hands might be thrust, and which would permit of cuts two feet in length. In fact, ligation of the bleeding gluteal is *not* a difficult operation, and I would not, if I were again to undertake it, think it necessary to control the circulation by pressure on the internal iliac through the rectum. Even with an open wound the surgeon ought to be able to make the necessary incisions, and to clap his finger on the artery where it emerges from the pelvis, in a few seconds of time. The vessel is easily found. The neighboring bone and ligaments afford a firm basis for compression, and I shall henceforth feel that no surgeon understands his business, who would let a patient bleed to death while fooling with styptics and compresses. The only difficulty that I could imagine to be at all serious, would be the occasional difficulty of diagnosing the source of hemorrhage, whether from the gluteal or sciatic or internal pudic arteries. In that case the internal iliac could be controlled from within the rectum, and the surgeon could direct his incision so as to cover the positions of the three vessels. In cases where the walls of the artery had become so softened by inflammation, or so brittle by calcareous deposit as to give way under the

ligature, the operation would still be of vast service by exposing the bleeding point, and permitting the direct application of styptic and compress. As regards methods of operating, that of Syme, by a small primary incision through which the finger may be thrust and the artery sought for before the coagula are turned out, is undoubtedly to be preferred to that of Bell, where the large incision was followed by a profuse hemorrhage and a desperate lunge on the part of the surgeon, at the bleeding point.

There is but one point more which I wish to discuss before closing this paper. In Mr. Holmes' article on gluteal aneurism, published in his system of surgery, he urges that Syme's operation should be confined to traumatic aneurisms, "since in that case the artery will be sound." In this case just related, the artery was not sound but very brittle from calcareous deposit; and I venture to say that in most cases where the artery is ruptured by a fall without external wound or bony fracture, the walls of the vessel will be found badly degenerated. Under no other condition could an external blow produce rupture under the vast thickness of muscle, fat, connective tissue and integument. This consideration should not, however, prohibit ligation, but should make the surgeon cautious lest in tying too tight, he cut the vessel through with his ligature.

The Use of Anæsthetics in Labor.*

BY R. HARVEY REED, M. D.,

(Late Surgeon of the Delaware Copper Mining Company, Lake Superior.)

"But is there yet no other way, besides
These painful passages, how we may come
To life, and thus fulfil our destiny?"

WHO doth not shudder and recoil from even the very thoughts of pain and misery, which racks the soul and body with the sharpest pangs of torture and agony? Whose presence makes the bravest knight recoil, and pales the ruddy cheek of the stalwart Jove himself, and sinks all human hearts within their bosoms when confronted with this stern monster, who with gathered and awful sable brows, marks them for his victim?

Whose heart does not yearn with sympathy as they stand around the obstetrical couch and see a wife, a mother, a sister, or a friend tortured with the excruciating pains of

*A paper read before the Union Medical Association of North Eastern, Ohio, held at Medina, November 9, 1889.

labor, and almost overwhelmed with anguish, and calling to the accoucheur "Hast thou the pretty worm of Nilus there, that kills and pains not?" To which we answer, in the words of Holmes, 'the fiercest extremity of suffering has been steeped in the waters of forgetfulness, and the deepest furrow in the knotted brow of agony has been smoothed forever.'

Less than two score years ago three American surgeons, Drs. Morton, Jackson and Wells, almost simultaneously divulged to the world this most beneficent boon since the redemption of fallen man—the artful administration of ether, by which the most dreaded surgical operations can be performed whilst the patient is slumbering in a happy unconsciousness, free from all pain and suffering.

At first anæsthetics were only used in surgical operations, and were not, and are still only to a limited extent used in obstetrical practice. Prof. Simpson, of the University of Edinburgh, ventured their use for the first time in the puerperal state the 19th of January, 1847, and met with marked and unexpected success.

For the sake of convenience we will discuss, first, the propriety of using anæsthetics at all in confinement. Second, the effect, when used, produced upon the mother; and third, the effect upon the child.

We will, no doubt, all admit that uncomplicated labor is a physiological phenomenon and the result of natural causes. But, whilst that is true, it is also just as true that pain is a physiological evil, and that whilst labor is the result of natural causes, it is in no way dependent on the pain that attends it for its success. No person will dispute that the sense of pain is confined to the sensorium and sensory ganglia, upon which anæsthetics act so specially and almost alone. The effort of the uterus to empty itself is so slightly related to these that labor may go on without interruption in perfect paraplegia, or it will proceed when the cervical vertebra may have been fractured, or again in the deep apoplectic coma of eclampsia, or in the dead insensibility of drunkenness.

These facts lead us to the conclusion that pain is non-essential to labor, but that we may have spontaneous uterine or reflex action, almost in perfection when the sensation of pain through the brain is entirely or to a great extent removed.

The fact established that pain is not at all essential in labor, but only some of the results of this phenomenon, and no more necessary for its success than it is to the success of a surgical operation, the question naturally arises: Why not dispense with it in labor as well as on the surgical table?

Ah, but you say the two cases are entirely different; we admit they are entirely different, which difference we will now endeavor briefly to bring to your notice.

Whilst the surgical patient passes under an anæsthetic in a diseased condition, and expects to awaken with a mutilated body which at best is only to mourn in a majority of cases, the obstetrical patient passes under the anæsthetic in health which she can look upon as the scientific and welcome haven of rest, at whose door she gladly lays down her weary burden and awakens to receive her reward. "She seeks this sleep a suffering woman in travail" and awakens a happy mother, ready to reap the fruits of her suffering and patience during the long and weary months just past, in the fullness of joy, such as a mother only can know and fully appreciate.

The surgical patient frequently comes laboring under shock by a sudden accident, or is time-worn and weary with disease and a debilitated and prostrated nervous system.

The obstetrical patient, on the other hand, comes before us in the highest condition of vitality, every nerve and muscle is strung up to the highest pitch for the rapidly approaching contest.

Not unfrequently the surgical patient comes afflicted with valvular heart disease, which requires every atom of vitality they can acquire to support life, which we must all admit is very greatly lessened by the use of anæsthetics.

In the obstetrical patient, where the same difficulties exist, she has been previously prepared by nature, and comes into labor with the heart stimulated by her condition and braced by all her surrounding circumstances and cheered with the brightest rays of hope.

Not unfrequently surgical patients have a tendency to anemia of the brain, which is certainly very much intensified by the use of anæsthetics.

On the other hand, obstetrical patients who may have had a tendency to the same disease

will be found least afflicted with it now. The blood is in its best possible condition, and surging through her brain in torrents as compared with her condition in the non-puerperal state.

Few surgeons hesitate to use anæsthetics in almost all surgical operations at the present day, whether they be great or small, and with but little or no risk if a pure drug is judiciously used. We must admit, if we are honest with ourselves, from the foregoing, that in the majority of surgical operations the death tendencies are much more evident than they are in the majority of obstetrical cases.

Death, following a surgical operation, is generally the result of shock, anemia of the brain or general debility, all of which we are compelled to admit anæsthesia very greatly favors.

Death, in the parturient condition as a rule, is either from hemorrhage, over exertion, or consequent reaction, plethora, congestion of the brain or convulsions, all of which, except the former, find a ready and reliable antagonist in our anæsthetics—and the danger of the former are not in the least degree increased.

These facts naturally press us to the legitimate conclusion that the parturient woman is physiologically in a safer condition for the use of an anæsthetic than the surgical patient; while no surgeon questions the propriety of giving chloroform in almost any case whether it be a capital or minor operation.

Then, why should we not use anæsthetics in labor as well as in our ordinary surgical operations when they are not contra-indicated by her condition physiologically, but on the contrary act favorably?

The past experience of our best accoucheurs who have been using anæsthetics for a score of years, almost with one accord testify to its happy results upon the mother's health, whilst in all cases it has soothed their suffering and saved them from the exoruciating expulsive pains of labor. By reference to my private notes on obstetrical practice, I find that most careful and guarded of instructors in the University of Pennsylvania, who is always careful not to venture an opinion before he is satisfied with its orthodoxy, Prof. R. A. F. Penrose, in a private conversation with him some years ago, gave it as his opinion then, that the careful and judi-

cious use of anæsthetics in the later stages of labor, and in hard labor, and especially in dystocia, was certainly one of the modern God-sends to the suffering female; but also added that great care should be used to guard against hemorrhage, and especially in those persons who were predisposed to it. For, said the professor, its application in this department of the medical science is comparatively recent and demands the closest scrutiny on the part of the accoucheur.

In a private letter from my esteemed and worthy friend, Prof. John J. Reese, of the University of Pennsylvania, who first instructed me in this branch of our healing art, and who has had the experience a score of years affords in this particular direction, says, "I have no reason whatever to change my views as regards the efficiency of anæsthetics in labor; I think they are not called for in ordinary mild cases, unless the patient is very nervous and timid. But I never fail to use them in hard labors, and always in instrumental ones." Cazeaux says, that "when properly administered, and in moderate doses, anæsthetics do not interfere with the regular course of the uterine contractions." Instead of the wild excitement, horrified with the possibilities of impending dissolution, by a proper and careful etherization of the patient, she passes into a quiet and peaceful slumber while the laboring uterus continues its course uninterrupted. The soft parts are aided in their relaxation, while a strong barrier is placed against that dreaded and oftentimes fatal calamity, puerperal convulsions. Thus the labor proceeds quietly and peacefully to a happy end, and the wild shrieks and sobs of despair so common on these occasions are silenced by a peaceful rest in the arms of morpheus.

Having satisfied ourselves that the results from the use of anæsthetics in labor are beneficial rather than injurious to the mother, we will glance at its effects on the fœtus. Cazeaux says, that "whatever difference of opinion may still remain respecting the influence of chloroform upon the health of the mother, no one doubts its entire innocence as regards the fœtus. In the immense majority of cases the new born child presents its usual appearances; its cries are neither weaker nor heard less promptly, nor does its viability appear to be in any way injured."

We have not, and will not, lengthen this by proving our statements with a detail of

cases which can be found by those who wish to investigate the subject still further in almost any obstetrical journal or standard work on obstetrics. We have simply given you a summary of the conclusions we have arrived at from our own experience in the use of anæsthetics in labor, backed by that of standard authorities whose experience of a score of years has led them to confirm their use.

Thus far we have said nothing about the use of anæsthetics in dystocia, in which condition they are absolutely invaluable not only for the relief of pain from any operation which it may be necessary to subject the patient to, but by rendering the patient motionless, and thus facilitating any manipulation which may become necessary.

The objections to the use of anæsthetics in labor, lest you should be obliged to give other remedies, is only a popular bug-bear and without foundation; for in obstetrical practice it is seldom, if ever necessary except in some operation, to push anæsthesia to perfect unconsciousness, but simply to the relief of pain, and in that condition there is seldom any trouble in getting patients to take almost any nostrum you may desire.

It is scarcely ever necessary to use an anæsthetic before the last stages of labor, although it is not entirely objectionable.

Prof. John J. Reese says, in the same letter referred to before, that as a rule in his private practice he does "not administer them until the head is well engaged and the labor pains become decided. I do not keep the patient all the time fully etherized, but let her inhale a fresh dose just as the pains come on, and very generally she is unconscious of the last pain and remains so for a few minutes after the expulsion of the child."

In my own practice my rule is not to commence the use of the anæsthetic before the os is dilated to, at least, the size of a common nickel, before which the woman will bear her pains with but little complaint. I have found that the danger of delay in labor is much more liable to occur from the use of an anæsthetic too early in labor than by the too free use of it after labor has advanced.

It may be laid down as a rule before commencing the use of an anæsthetic, to give a dose or two of the fluid ext. of ergot which will not only facilitate the uterine contractions, but act as a safe-guard against any

tendency to hemorrhage. Of late I have generally used quinia in from three to five grain doses or the two combined, and have always obtained the most happy results from their use.

A diversity of opinion still exists as to the best and safest anæsthetic to use. Cazeaux advises the use of chloroform; Prof. Reese uses pure washed ether, six parts, to pure chloroform one part, to be mixed just before using; Dr. Barr of Philadelphia uses ether three parts, chloroform one part, and alcohol, two parts. The formula which I have been using is

| | | |
|---|----------------------------------|------|
| R | Chloroform (Squibb's)..... | 3 ii |
| | Aeth. sulph. (Squibb's)..... | 3 ii |
| | Alcohol absolute (Squibb's)..... | 3 j |

M.

from which I have always had the most desirable results.

We trust the few suggestions we have given you may receive a fair and impartial trial, especially by those members of our profession who are as yet strangers to the use of anæsthetics in obstetrics; and may they seek early to use the elements which God Almighty has placed at their command, and set them as guardians over, with which they can calm the troubled sea of pain and agony, and say "Peace be still."

Before closing, let me ask you is it fair, just and honorable for you to favor the stalwart man with this boon of relief for a trifling operation, or endanger without hesitation the feeble patient who comes to your office with one foot in the grave and the other on its very brink, and yet deny our mothers, wives, sisters, daughters and the female world at large, who year after year travail in pain and anguish together, and yet who are physiologically well, and who run less danger from its use than the former? Just think of it for a moment, and ask yourself the question, Is it not more from prejudice than reason?

West Salem, Ohio, Nov. 9th, 1880.

Traumatic Fever—A Lecture.

BY J. WILLISTON WRIGHT, M. D.,
Professor of Surgery in the University of New York.
(Reported for the DETROIT LANCET.)

GENTLEMEN:

I HAD not time in my concluding remarks upon the subject of shock to say anything as to the propriety of operating during the continuance of this condition. As a rule, we do not operate in a case of surgical injury until after the patient has passed into a state

of reaction. That subject we discussed somewhat last night in our quiz in connection with lacerated wounds, but it is a point which troubles young practitioners considerably in their first surgical cases as to the time when an amputation, in the case of a crushed limb, ought to be performed. Remember then that as a rule we do not operate until reaction has been established, for the reason that if you operate before this time the operation itself is more apt to add to the state of depression, and the patient will pass into a state of more profound shock than before you began the operation.

There are, however, certain exceptions to this rule, as for instance where a man's leg has been thoroughly crushed, perhaps by the passage of a heavily loaded railway car over it. It has been thoroughly disorganized from the end of the toes up as far as the knee, and so long as this crushed leg remains in connection with the thigh it seems utterly impossible to produce a state of reaction. It does not seem to make any difference how much stimulants you administer internally and externally, the patient will remain in this condition which we call shock. Now, under these circumstances, in these exceptional cases, it is sometimes necessary to operate before the establishment of reaction. Fortunately, in these days, however, it is not so difficult to decide this question as it was before the days of anæsthetics. Up to that time it was certainly one of the most difficult subjects in surgery for the surgeon to decide upon. But now we know that in these cases of which I am speaking, where stimulation does not seem to have any effect upon the patient in increasing the action of the heart, increasing the color of the face, bringing about what we call reaction, we can administer under such circumstances to the patient a small quantity of chloroform which will in the first place act as a stimulant, and in the second place do away with the mental or nervous element which produces shock. The presence of such a crushed member is from its very sight a source of mental shock, as you will understand from what I said to you in my former lecture under this head, and putting that patient simply under the influence of chloroform does away with that one element of shock. It does away with pain, and reaction will come under its effects, whereas you could not establish it by administering stimulants in any other way.

Now, there are other cases also in which I would make an exception. For instance, where a limb has been crushed almost entirely off, being attached to the remainder of the limb simply by a few tags of skin or ligaments. In such a case we need not wait for reaction before operating, for we can remove such a part very simply, as with a pair of scissors snipping these tags of flesh, tendon, or whatever they may be, without producing any pain, without the risk of increasing the shock in any degree. In this case it ought to be done, so as to get this unsightly mass out of the way as soon as possible, and then if the bone be sticking out, or for any reason amputation has to be done afterward, it can be done after reaction.

Now, when this reaction, of which I am speaking, comes on in a great many cases it stops at a normal point. That is to say, as soon as the patient's pulse has reached a normal condition, as soon as the respiration has reached a normal state, etc., it stops at this point. But in other cases it passes beyond it, and becomes a state of fever. This state of fever following an injury is what we call traumatic fever.

Now, there are two forms of traumatic fever. The first is what is called true traumatic fever. It comes on almost always at about the end of the second day after the receipt of the injury. It lasts usually about a period of eight or nine days.

This form of fever, true traumatic fever, is supposed to be dependent upon the absorption into the blood of decomposing particles upon the surface of the wound. And the kind of wounds in which you will get this true traumatic fever are those wounds in which there is more or less laceration, perhaps more or less complicated with the presence of other substances, such as dirt or sand, and to which for some reason proper attention has not been paid. One of the chief indications in the treatment of all these wounds is cleanliness, or the prevention of decomposition, which I spoke to you about several days ago. It is because of this strict attention to cleanliness that at the present day so many lacerated, contused, incised wounds of extensive character, are not followed by traumatic fever. It is simply because we keep the wound so clean. We either treat them antiseptically, and thus prevent decomposition, or we treat them as

open wounds so that as fast as any matter forms in the wound it has free escape, or perhaps we treat them by the introduction of the drainage tube. For this reason, I say, we very often have extensive wounds at the present day which are not followed by traumatic fever.

Now, the other form of traumatic fever is what is designated as secondary or inflammatory traumatic fever. This depends usually, upon another class of causes. The first form, true traumatic fever, is dependent upon the absorption of decomposing particles upon the surfaces of the wound, and begins say about the second day. The second form or the inflammatory form, comes on a little later than this, and is generally dependent upon the consecutive inflammation of the surrounding parts—not always of the surrounding parts; it is sometimes dependent upon secondary inflammation of some one of the viscera of the body; for instance, an inflammation of the lungs, or of the peritoneum. It is also frequently dependent upon an effort of nature to separate from the living tissues a quantity of sloughing material, such as a piece of skin that has been crushed until it has lost all its vitality, or a piece of tendon, or a large portion of aponeurosis undergoing a process of sloughing. It would seem, therefore, that this form of traumatic fever is dependent upon the rapid introduction into the blood of waste particles, and these waste particles seem to be introduced into the blood faster than the emunctory organs of the body can eliminate them.

True traumatic fever and the secondary or inflammatory form, brings us directly back to the question of inflammation. Had I gone over the whole subject of inflammation in the beginning of the term, as I did last year, I should have told you that inflammatory action depended upon surgical causes, and is of three different varieties. That is to say, we have in the first place a form of surgical fever which we designate as sthenic fever; in the second place, we have another form which we designate as asthenic fever; and in the third place, we have what we call nervous or irritative fever. In whatever way, then, we get this secondary form of traumatic fever, it assumes one of these three varieties as a rule. Sometimes they are more or less mingled one with the other.

In all these forms of inflammatory fever,

there are no less than three stages. We have, in the first place, the stage of invasion; in the second, a stage of exacerbation or progression; and in the third place, a stage of decline.

To take the first of these three forms of fever, the sthenic form, speaking of it from a surgical stand-point, first, as to the kind of subjects in whom it occurs. They are generally young subjects, who are overtaken with a surgical injury in the full enjoyment of health; young adults or vigorous children, perhaps. The fever which occurs after the receipt of a surgical injury, is of the sthenic variety in these subjects. It is characterized by a pretty intense form of fever, accompanied by a high bounding pulse; a very hot skin, a rise of temperature that is from two to four degrees above normal, with certain other changes in the function of different organs of the body which I will speak about again.

We almost always find the urine scanty in quantity, of a very high color and of a very acid reaction. It is red; sometimes it stains the vessel in which it is voided, of a red or brick-dust color, and makes a deposit on the sides of the vessel which is very difficult to remove without using a strong alkali. We also find in examining the urine of patients suffering from this sthenic form of fever, that in addition to the dense condition of the urine, there is a very marked absence or diminution in the natural quantity of chlorides. You know that ordinary urine contains a great deal of the chlorides. Put in a little of the solution of nitrate of silver, and these chlorides will be thrown down in the form of a dense white cloud; and that, by the way, is one of the means which certain irregular practitioners, especially in this city, have of making ignorant people believe that their urine is loaded with semen, that they are suffering from spermatorrhœa. They get the person to pass a little urine in a vessel, they add a little of the solution of nitrate of silver, a white cloud of the chloride is thrown down, they hold it up and say, there, you see your urine is full of semen. You are wasting your substance, not perhaps from riotous living, but you are getting rid of it at all events, and unless you put yourself under a course of treatment in my care you will die.

Now, these chlorides are frequently entire-

ly absent in this condition. The bowels are generally constipated. The patient suffers from a feeling of intense languor, indisposition to move, a feeling of lassitude and depression. At the same time he probably has a red cheek, a very bright, shining eye, and he will probably have a headache most of the time during the progress of this sthenic form of fever.

The treatment of this form of sthenic fever will consist, in the first place, in the removal of the cause if possible. To illustrate that point, suppose we have a wound which contains some foreign substance of some kind or other; it may be sand, or dirt, or possibly a splinter of wood. Now, the first indication for the treatment is to remove this cause, if possible. In the second place, after having removed the cause, we have to treat the fever by suitable remedies, remedies adapted to this peculiar form of fever. This will be in the first place, probably, blood letting in some way or other. If the patient is a strong, robust, vigorous young adult, in all probability it would do good to let out a certain quantity of blood from the arm. If the injury be about the head it might be well to apply some leeches there, or if about the abdomen, apply them there. Then to begin the treatment it may be well to give a pretty active purge in order to remove any obstruction in the alimentary canal. Then as the patient's pulse begins to run up and become bounding and rapid, it will be necessary to bring it down by such remedies as aconite and veratrum viride, about which Prof. Thomson will tell you a good deal more than I now have time to do.

In addition to these remedies we shall probably have to use diaphoretics, remedies which will act upon the skin, as nitrate of potash, and the salines generally. Sometimes we make use of diuretics, remedies which act by increasing the amount of urinary secretion, and for the reason I have just given you, that the urine is scanty, it is high colored, it is loaded with urates frequently, or uric acid, etc. We give diuretics to increase the quantity of urine, dilute it, and give it its healthy character. Now, these fevers frequently break up by a deposit of a large quantity of urates in the urine. They break up in a kind of crisis. This form of fever is not as apt to do so as the next forms which I shall describe to you, but they do sometimes

break up in this way, in a crisis which will manifest itself either by a deposit of a large quantity of amorphous urates in the urine, or by the occurrence of a diarrhoea, or a profuse sweating. In some one of these ways, I say, the fever often breaks up, terminating in a kind of crisis.

The next form of traumatic fever is what we call the asthenic type. This form is characterized by typhoid symptoms. Now, let me ask you to make a distinction here between the term typhoid condition and the term typhoid fever. When I speak of asthenic fever I do not mean exactly typhoid fever; I do not mean that condition of typhoid fever which is accompanied with ulceration of Peyer's patches and so on. I mean simply a condition which resembles typhoid fever in many of its aspects.

This form of fever occurs generally in people who are in a broken down state of health at the time the injury is received. It is the kind of traumatic fever which we get in the tenement house population as a rule; people who have been badly fed, badly nourished, badly clothed, who have lived all their lives in a vitiated atmosphere, and who have been indulging in certain forms of dissipation all their lives. They are not up to the standard of health. They are cachectic; more or less broken down. So that when you have a surgical injury in one of these persons the fever which results will not probably be of the sthenic variety, but it will be of this typhoid condition, or the asthenic form of fever.

Now, this is characterized by a general low condition of the whole system. The fever does not run as high as it does in the other type; the pulse is not as full and bounding. It may be rapid, but it is a softer, a more compressible pulse. The tongue which in the sthenic form of fever was simply coated with white fur, with perhaps a little redness along the edges, in the asthenic or typhoid form of fever becomes coated pretty soon, being of a brown color, and hard and dry, it being difficult for the patient to move his tongue in the mouth. The teeth become covered with what we call sordes, a dry secretion which very soon becomes black or brown. And there is from the first to the last in this form of fever a tendency to a low muttering form of delirium, just as you have in typhoid fever.

I forgot to say that the quality of the pulse differs very materially in the sthenic form of fever according to whether you have one tissue or another involved. For instance, if there be an injury of the skin, or of a glandular organ like the testicle, there will be a pretty full, rapid pulse, but it will be what we call a compressible pulse, and we can shut it off with the finger. On the other hand, if you have this form of traumatic fever resulting from an injury to the peritoneum, or any other of the serous membranes, while the pulse is, perhaps, equally rapid, perhaps more so, it almost invariably has a hard, wiry form, non-compressible under your finger.

To come back then to the asthenic form, or typhoid form of fever, we come next to the treatment.

Now, you must notice this difference, that in the sthenic form I recommended blood letting, and purgatives, and diaphoretics, and aconite and veratrum viride, and all of those remedies which are calculated to cut down the grade of the fever. But when you come to this other variety of fever your course must be entirely different. Here the tendency is for the constitution to run down; the tendency is for the patient to pass into a lower and lower condition, characterized by more and more of the typhoid symptoms every day, until finally this low muttering delirium which you have noticed two or three days passes into a state of coma, and the patient will die. Your treatment, therefore, from the beginning must not be of a depleting character, you must not depress the patient by any of these remedies, but support him from the beginning to the end by the use of stimulants, by the use of very nutritious diet, a good supply of nourishment in such a form as the patient can best take care of it, and that is usually in the fluid form. You will have to use brandy and ammonia, the preparations of bark, and milk punch, being governed in the amount you administer entirely by the effect upon the patient. That is, if you give the patient three or four milk punches a day with an ounce of brandy in each one, and you find under this stimulation that the pulse comes up, becomes fuller, the patient's tongue becomes more and more moist, and there is less tendency to muttering delirium, you know the patient is deriving benefit from the

stimulation. But, if on the contrary, the tongue become dryer, the pulse become weaker, then you know you are not giving enough stimulants. It requires good judgment in all these cases to know how to administer stimulants, when to give them and when to withhold them. It is very difficult to describe the conditions which should guide you in their administration in this asthenic form of fever. It is something which each one of you must learn at the bedside as a matter of experience.

Next we come to the irritative or the nervous form of traumatic fever. This form is of a less specific character by far than are the other two forms. Its chief characteristic is, that it has sudden exacerbations and certain periods of decline. It runs up and down, in other words like a pair of stairs. But whatever form it takes it is always characterized by symptoms of nervous irritation. Frequently you will find it associated with the last form I have described, the asthenic form of fever, but its characteristic is irregularity, and nervous symptoms of all kinds.

In speaking to you of the treatment of this irritative form of fever I perhaps might better defer that until I come to speak of traumatic delirium, which is really another name for irritative or nervous fever. I prefer to discuss it in this way because you will find in some of your books the two described separately, the one under the head of general inflammation, as irritative or nervous fever, and the other in connection with wounds under the name of traumatic delirium.

Let us turn our attention then for a few moments to the subject of traumatic delirium. Traumatic delirium is a form of delirium which comes on usually three or four days after the receipt of a surgical injury, if you are to have it at all. It generally develops itself in a class of subjects who have either been overworked mentally before the receipt of the injury, or in a class of subjects who have been dissipated, taking for a considerable length of time large quantities of alcoholic stimulants. I do not mean by that, gentlemen, that traumatic delirium can only occur in patients who have been guilty of daily debauchery, who have been drunk every day, old toppers. Nothing of the kind. We see traumatic delirium occur after a

wound very frequently in persons who have not been drunk in their lives, but who have been indulging, every day perhaps, for a year, or two, or more, in an occasional drink; they have been taking two or three good stiff drinks of whisky, or brandy, generally whisky, but not enough to allow any one to notice they have been taking stimulants, yet enough to have introduced into the system enough alcoholics to produce an effect upon the nervous system. These patients, I say, are just about as apt to develop traumatic delirium as is the old toper.

This traumatic delirium generally comes on in the night, and very suddenly, and, as I have told you, about three or four days after the receipt of the injury.

It assumes two forms. First, it assumes what we call the inflammatory form of traumatic delirium, and secondly, the nervous, or irritative form of traumatic delirium, bringing us back again, as you see, to the condition of irritative or nervous fever.

The symptoms of the inflammatory form of traumatic fever are, in the first place, a very rapid, full, bounding pulse, generally a contracted pupil, usually a very flushed face, also a great deal of pain in the head, the tongue is generally heavily coated with white fur, and the secretions of the mouth are very unpleasant; they are very sticky and viscid, mawkish to the taste of the patient; and lastly, there is a high grade of furious delirium, a kind of delirium which induces the patient to shout, and sing, and screech, and yell, and kick, and do all sorts of irregular things. If he has a crushed leg he does not seem to pay any attention to the amount of pain, does not seem to be conscious of it, he threshes about as if his limb were perfect, unless put into the strait jacket and prevented from doing so; he knocks it against the wall or bed, and abuses it as though it did not belong to him.

Now, remember that the delirium in the inflammatory grade of traumatic fever is a wild form of delirium. It is not the low, muttering delirium that you get in the typhoid condition. It is a furious, maniacal delirium.

The treatment for it is almost always that of depletion. At the same time I would throw out a word of caution here, that in bleeding these patients you should be very careful not to deplete the patient to such a condition that when the delirium is over you

will find him reduced by your efforts to a very low, weak state. Be careful not to carry it too far. These depleting measures will consist of general blood letting—taking blood from the arm. You see, gentlemen, I have not entirely abandoned that mode of treating disease. I use the lancet occasionally even in these days. I use it just in this class of cases that are accompanied by very urgent symptoms. I would advise you, therefore, when you meet with this form of delirium in a healthy, strong, robust man, to take a certain quantity of blood from the arm. If the delirium continue, it may be necessary to take blood locally from the head by leeches, and then apply cold to the head, and follow this up by pretty active purgatives, controlling the pulse by aconite and veratrum viride again, and use diaphoretics, diuretics and so on, as you would treat any other active form of inflammation. In that way you will subdue this form of delirium in a good many cases. In other cases it will go on to a very decided congestion of the membranes of the brain, and the patient will die in spite of all that you can do.

Now, let us turn our attention for a moment to the other form of traumatic delirium, that form to which is given the name of nervous traumatic delirium. This form of delirium will generally occur in those people who have been old toppers for a considerable length of time. It assumes very much the form of ordinary delirium tremens as you see it in the drunkard. Now, instead of having a high, full, bounding pulse, as we have in the other form, the pulse is generally small, although it is rapid. The pupils are very apt to be dilated instead of contracted as in the other form, the tongue is coated, generally pretty red along the sides and pretty heavily coated along the middle. If you ask your patient to put the tongue out it will generally tremble, the patient can not hold it still. If you ask him to put out his hand you will find this tremulous also. It has that shaky condition which you see in old drunkards. His delirium instead of being of the furious character that I described to you in the other form, will be of the busy, muttering variety, a suspicious form of delirium, just the same thing that we get in delirium tremens. The patient will be busy picking about the bed clothes, and looking for the little objects that he can get hold of

Turning them over in his fingers, looking at them in this way and in that way, and never being satisfied with his examination; perhaps he will be fingering after objects in the air, just as you will sometimes see patients do in typhus and typhoid fever, grasping night and day, with their eyes wide open, after imaginary things in the air which they can not quite reach, they can almost get hold of them apparently, but not quite, and they keep reaching farther. That is the kind of delirium that you get in this nervous form of traumatic delirium. Now, the treatment of this form of traumatic delirium will consist, not in depletion as in the other form, not in the administration of any of the lowering remedies, but in the use of stimulants, and things supporting, and especially in the use of opium. For instance, suppose you have this nervous form of delirium in a man who has been in the habit of drinking. No body can manage that case unless he uses stimulants. I do not think it can be done, and I think that just as surely as you take that man's stimulants from him just so surely will he die, and within a very few days. Remember then, that you have a nervous condition which must be controlled, and this is to be done by opium, and it will probably take pretty free doses to do it. In some of these cases of old drunkards the stomach will not absorb the opium, and you will be obliged to use it either by the rectum or hypodermically. But at all events give enough to subdue the condition of nervous wakefulness, control the irritation, and give the patient a sufficient amount of sleep. If this patient has been in the habit of drinking ale or porter, the best way to give the opium is to put it into his customary drink. If he has been in the habit of drinking whisky or brandy, use that. The stomach is more used to that than to anything else, and it will probably take more of it better than it would take anything else, and you may be able to get opium absorbed into his system in connection with the stimulant to which his stomach has become so accustomed, whereas if you should put the opium into his stomach alone it would not probably be absorbed in any degree to produce the desired effect.

Lastly, as I indicated to you before, you will meet with these cases more or less associated with one another. That is to say,

you will find cases in which there will be a pretty active form of delirium, looking as though it were of the inflammatory type, and at the same time there will be symptoms of nervous exhaustion, which will lead you to suppose it is going to assume the other form before you get through with it. Those are mixed cases, and they are cases which will demand the very best judgment that you can bring to bear in the treatment and management of them.

I cannot give you any better advice, in concluding this subject, than to say to you, that in all of these mixed cases where there is a tendency to the inflammatory form of delirium combined with the nervous form, you must deplete your patient on the one hand, or with one hand, while you support him, if he tends to pass into an exhausted state, with the other. You may take a little blood from the arm, then put him at once upon good stimulants or nourishment as you think proper. You may give him aconite and veratrum viride for a few hours, and then take them away as the pulse comes down and the fever lessens, and the delirium becomes of a milder character, and then go on to support the patient; but in all of these cases you must recollect that your main stay is opium where there is this nervous condition of delirium, an inclination to lie busily engaged, in a condition of low muttering delirium, with a cold skin, not much fever, perhaps the skin covered over with large drops of clammy perspiration, with that mawkish taste on the tongue, with disordered secretions of the entire alimentary canal. You may find it necessary in these cases to begin your treatment at the very outset by the administration of a pretty powerful mercurial purge, and see if you cannot, by changing the secretions of the patient, establish a new order of things, get him on a new basis, and then treat him according as his delirium assumes one or the other of these types.

A Holstein peasant has devised a new test for trichinæ in pork. When he kills a pig, he sends a portion of it to his pastor. For fourteen days he awaits the consequences. If his pastor remains healthy, then he is easy in his own mind and is convinced that the pig was healthy. He now proceeds to eat the remainder of the pig.

Reports of Societies.

Detroit Academy of Medicine.

November 9, 1880.

Dr. Geo. P. Andrews read a letter from Dr. Myers, of Savannah, Ga., giving the history of Dengue Fever. The disease first appeared in the West Indies and Southern States of North America in the years 1827 and 1828. Several epidemics have occurred during the last twenty-three years, the one just passed through (viz. 1880) being the most severe and lasting ten or twelve weeks. It commenced the latter part of August in Savannah, attacking young and old, male and female. It commenced generally with great ennui, chilliness and pains in muscles and bones; in some cases pain would be located in back and arms; in other cases it would be in the back and loins, and in still others it would be from head to foot. Pain in the head is not confined to frontal or supra-orbital regions, as is the case in yellow fever, but is all over the head.

The eyes are injected and watery, not smoky, and they feel to the patient as though they were pushed forward. There is no yellowness of skin, nor of the eyes. These symptoms are followed by intense heat and redness of skin, with a temperature of 102° to 106°, nausea and sometimes vomiting of undigested food and a glairy mucus. The fever continues 24, 36, 72 or 80 hours, and is followed by copious perspiration and large quantities of urine. In yellow fever (Dr. Myers passed through epidemic of yellow fever in 1876) the secretions are stopped and the vomit in most cases is disorganized blood. The eruption of dengue resembles that of measles, appearing in some cases at the commencement of the fever, in others not until its cessation, and in others during convalescence. The bowels are constipated and obstinate. From my experience of the disease in epidemics of 1858, 1866, 1876 and 1880, I should call it an eruptive rheumatic fever. The urine is at first clear, but at later period of disease becomes cloudy and contains albumen.

I simply treat symptoms; give saline cathartics, warm drinks, flaxseed, lemonade, spts. nit. dulc., and Dover's powders to allay pain (which gives only temporary relief). I also give tr. aconite to old and young. Quinia I have little faith in, having derived

no benefit from its use, and it is apt to irritate the stomach, producing nausea and vomiting. Some physicians use it, however, with Dover's powder throughout the whole course of the disease. Great feebleness winds up the attack. The heart is sometimes affected, especially in the young, and in these cases I combine digitalis with the aconite.

Stimulants and tonics do little good. The appetite is poor for days and weeks, and often wanting. I usually give milk, soda water, mineral waters, mutton or chicken broth and beef tea while in bed. In my own case the disease was ushered in with a chill. I was convalescent in a week, but very much debilitated.

Dr. R. D. Ames was a firm believer in the identity of dengue and yellow fever, but I think them entirely different diseases; never heard of a death from dengue. Desquamation occurs in many cases, and boils sometimes follow the disease.

Dr. Inglis had seen cases of acute muscular rheumatism with symptoms corresponding to Dr. Myers' description of dengue.

Dr. Andrews—I have seen cases of continued fever in which the symptoms were the same as in dengue.

Dr. Connor exhibited a fresh preparation of a temporal bone from an adult, showing the middle ear, membrana tympani, ossicles all in place, the chain being divided at the joint separating the incus from the stapes, the chorda tympani nerve as it passed through the middle ear, the openings into the mastoid cells, etc. The sections had been made by a jeweler's saw, and with such care as to do no violence to any of the delicate parts. The preparation was the work of Mr. Milton C. Conner, a student at Detroit Medical College.

Under the head of prevailing disease, Dr. Geo. P. Andrews reported several cases of diphtheria in which the exudation was abundant, but the constitutional symptoms were slight; the patients had suffered from sore throat ever since occupying their present quarters. The sewer had no trap, and Dr. A. thought this was the cause of the disease; but the family that formerly occupied the premises had no occasion to call a physician for years, except in cases of confinement.

Dr. Inglis reported several cases of diphtheria occurring in a three story tenement house. The waste pipe from the upper floor

emptied into that of the floor below, and this emptied into that of the lower floor. There was no trap in sewer. The stench coming direct from sewer to the several kitchens was abominable. The first patient was in family occupying the third floor. The membrane extended to larynx. Dr. McGraw performed tracheotomy, but child died in four hours. Another child in same family was attacked and died. One child of family occupying second floor also died from the disease. Other children in these families are sick now. Dr. Inglis had no doubt but the bad sewerage was the cause of diphtheria in these instances.

Dr. Carstens wished to know if the disease was diphtheritic croup or diphtheria extending into larynx.

Dr. Inglis—Two of the children had membranous croup first, the diphtheritic patches appearing later in the disease.

Dr. H. C. Wyman—Bad sewerage is not always the cause of diphtheria. Some years ago, in connection with the secretary of the State Board of Health, I made thorough investigation of the cause of diphtheria, which was prevalent in our State at that time, and we failed to find that bad sanitation was the cause. The disease is found in localities where drainage is most perfect as well as where it is imperfect. I do not think there is any connection between the two.

Dr. Inglis—I think there is no doubt but bad drainage was the cause in these cases.

Dr. G. P. Andrews—I have nearly always been able to detect bad sanitation in connection with my cases. I know that many are surrounded with same conditions and do not have the disease, but this is also the case with other diseases.

Dr. Bradley showed under the microscope a bunch of villi of chorion from a six weeks' ovum. It came away without any pain while patient was at stool; a slight discharge of blood accompanied it. The decidua vera was discharged a short time afterward and was very much thickened. The specimen was shown as being of some interest in the jurisprudence of abortion, as it is held by some that up to the third or fourth month of pregnancy if abortion occurs it can be demonstrated by the microscope by finding portions of villi in uterus. In this case the villi came away entire. I would like to know how you can tell the difference between a procured abortion and a mole by the villi.

Dr. Carstens—I do not think it has been attempted to show that you could distinguish between the two by microscope, but that we could determine whether the uterus had held an impregnated ovum or not.

Dr. Connor reported several cases of *titulus aurium* in connection with non-suppurative inflammation of middle ear; it would yield readily to quinine, but would recur repeatedly when medicine was omitted, one case lasting for several months.

Dr. Carrier—I was called a few weeks ago to a woman in eighth month of pregnancy, who had fallen through a slat bed, injuring her side and causing a discharge of water from the uterus; pain in back and side was very severe and accompanied with vomiting; os was undilated, but water dribbled away constantly. I gave anodynes, and pains were stopped. I attended her in labor four weeks afterward. There had been a constant flow of water during the time that had elapsed since her fall; her legs had become oedematous, rendering bandaging necessary during last two weeks. Labor was natural; child weighed 12 pounds. I could find no evidence in membrane of previous rupture. Uterus contracted firmly. Forty-eight hours later she had a severe pain, and in making the attempt to urinate passed a large quantity of water from uterus, saturating the bedding; has passed no water from uterus since. Another point of interest in this case was an attack on the thirteenth day after birth of child, of peritonitis (apparently), ushered in with a severe chill, followed by slight fever, tympanitis and great tenderness over abdomen. I gave anodynes and applied poultices without much relief. Temperature only 100°. Lochia had stopped on seventh day after delivery. On fourteenth day symptoms more severe, nausea and vomiting superadded and patient very weak and would faint on least exertion. I omitted anodynes and quinia and gave carb. ammoniac and digitalis, and within a few hours pain, nausea and fainting were relieved. Patient convalesced rapidly.

Dr. Geo. P. Andrews—I was called to a woman supposed to be three months pregnant, who at every attempt to urinate would pass a large quantity of pinkish colored water that did not come from the bladder; physical examination showed no dilatation of os, but could feel in the abdomen a tumor about the size and shape of a woman three months pregnant. She passed, while I was

present, a large quantity of water, saturating the bedding and without any urinary odor ergot had been given by attendants by mistake, causing pains to cease; the tumor in the abdomen, readily discernible before, had disappeared with the discharge of water.

Dr. Connor—I would like to know how you would explain this discharge of water.

Dr. Bradley—Was the uterus enlarged.

Dr. Andrews—Yes, until the water was discharged; at first examination the abdomen was very tender, but this also disappeared with the discharge of water.

Dr. Wyman reported a case of purpura hæmorrhagica in a girl, aged fourteen years, suffering from suppression of menses, purple spots under the skin on different portions of the body, and under the mucous membrane of the lips and mouth. She was treated with iron and strychnine. Patient ceased coming to clinic and was under the care of the second physician for about three months, when she died. Upon inquiry I found treatment had been the same as I had given her at the clinic.

Dr. Carrier—I have had, within a short time, a case of epistaxis that lasted four days, requiring plugging of anterior and posterior nares to overcome it. Also a case of hæmatemesis which yielded readily to quinia, and a case of bleeding following the extraction of a tooth. I have heard of several cases of serious hemorrhage this fall from slight causes. I would like an explanation of the cause.

Dr. Andrews thought there might be a malarial influence that would predispose to hemorrhage.

A. E. CARRIER, M. D.

Secretary.

The Detroit Lancet.

LEARTUS CONNOR, A. M., M. D., EDITOR.

Bricks Without Straw.

WHEN the Egyptians, in the time of their great prosperity, desired to torment their slaves, the Hebrews, and to render their lot, if possible, more unendurable than before, they required that they should make bricks without straw. Severe punishment awaited such as failed to make as many bricks and as good ones as when the taskmasters furnished straw. Centuries have

passed since then, and the same demand is often made by masters of their servants. To one instance attention is especially directed, in the hope that such efforts may be made as will speedily correct the evil. The case is, briefly, as follows: The medical profession is required by law to possess exact and comprehensive knowledge of the structure and functions of the human body, yet no human bodies are given it, from which alone this knowledge can be obtained. We are required to do a definite task, and forbidden the materials indispensable for its accomplishment. We are punished if we fail in the task, and we are punished if we get the materials necessary to its accomplishment. The only thing that can be done in the present state of things is to pay some one to steal the needful bodies. Of course those doing this are liable to fines and imprisonment, but if the attempt were made to practice surgery without frequent dissections of human bodies, patients would be so killed and mutilated that the law would send the operators to jail, as well as mulct them of what property they possessed. Practically, it is evident that the lesser evil of the two ways left to the profession by the laws of the State is to hire some one, willing for money to take the risk of being caught, to steal the bodies at such times and places as he may find most convenient. Really, the question resolves itself into a definite choice between a service to the living or the dead. It may be illustrated thus: Suppose two bodies were lying in the same room, one terribly sick and the other dead, and it was told the friends and all concerned that in order to obtain the knowledge necessary to restore the sick one to health and vigor it was imperative that the dead one should be thoroughly dissected; is it possible that any one would hesitate in their choice? Certainly, we daily see the living sacrifice themselves for one another; if so, how much less the request that the dead should contribute to the welfare of the living! But, as a matter of fact, no such sacrifice is needed or called for. None more than physicians respect the feelings of the living, as regards their dead friends. All that is wanted is the bodies of such as have no friends willing to pay the expenses of burial. The public of Michigan are yearly taxed many thousands of dollars to pay for the burial of paupers and criminals. Let the bodies of these be given, under

proper restrictions, to the medical colleges, and we will have heard the last of body snatching. Under the present system "of requiring bricks without straw," the bodies of no one are safe, as will be apparent to all who have observed the frequency with which the papers record the cases of "body snatching." The only possible objection to the dissection of human bodies lies in the fact that the feelings of friends might be wounded. This objection fails of any weight when only such bodies are taken as have no friends willing to meet burial expenses. The defect in the existing law in Michigan lies in the fact that it permits any one to claim the dead body, and have it buried at the expense of the State; the specific change desired is, that no claim shall be valid which is not accompanied by the funds needful for burial. As now constituted, the Michigan law is useless.

The good effects of this change in our present law would be manifold: (1) All bodies placed in the graves by loving hands would rest undisturbed by resurrectionists. (2) The taxes of honest, provident people would be reduced by the many thousands of dollars now required to bury criminals, paupers, etc. (3) The medical profession would be enabled to obtain that anatomical knowledge and that manual dexterity so indispensable to those who are responsible for the care of the sick and the wounded. Every sick person would bless the law that enabled his physician to have such a thorough training as to afford the desired relief in the shortest time, in the gentlest manner, and with the least danger. (4) The community at large would be benefited by the increased saving of valuable lives, and by the diminished periods of illness of the world's workers. (5) Scientific knowledge would obviously be increased, and thus the general resources of the world be augmented. It seems to us from these and other analogous considerations that all classes in the community have a common interest in so amending our laws as to encourage to the utmost the practical study of human anatomy.

Shall not the Government Prevent the Employment of Deaf Persons on Railways, etc.?

This question was raised by M. Moos, at the late Otological Congress at Milan. He affirmed, "after statistical examination of a large number of stokers and railway engineers, of which he gave numerical details,

that these employes are more subject than others to certain affections of the ears, and to such an extent that the safety of travelers is endangered by it. He recommended that all such railway servants should be examined as to their hearing previous to engagement and subsequently periodically examined." We have been looking for some one to propose that the government should exclude from employment those who used alcohol as a drink. It is a matter of fact that such persons have been the cause of the destruction of many trains, lives, etc. Then lots of employes are deficient in other respects, so that the lives of travelers are endangered thereby. Ought not the government to cast these out also? Besides, if travelers are to be thus carefully looked after by government, what will it do for those at home? Shall our lives and property continue to be placed in jeopardy by the physical imperfections and moral weaknesses of our neighbors? Perhaps the best plan would be for the government to adopt the old Spartan method of rendering all its citizens physically perfect, viz., kill off all the imperfect children shortly after birth. Or if this is too horrible for modern sensibilities, it might set out a reservation of land in the centre of the continent, surround it by a wall like the great wall of China, and collect in this all of the people whose imperfections had a tendency to interfere with (1) The safety and convenience of travelers; of course it would be sufficient to show, as in the cases of the color blind, not that any harm had actually resulted, but in the nature of the case harm should have resulted. (2) The safety and convenience of the inhabitants of any locality. The essential difficulty of the project, of course, lies in the fact that a considerable number of people are thus affected with imperfections of body or morals dangerous to the people with whom they mingle.

In short, in so far as the government is concerned, the whole matter, if pushed to its logical results, is absurd, or worse, grossly unjust. That individuals and corporations should make such discrimination of the capacity of men as would give them the best servants, is both just and wise. Surely every shrewd business man will so act as to promote his personal and corporate interests. If deaf, dumb, color-blind, drunken, ignorant,

viscious, lazy, etc., people are harmful to his interests and that of the people whom he serves, we may rest assured that such must seek employment elsewhere. Our point is, that in this whole matter the discrimination should be made by individuals and not by the general or local government. In this way justice to all is more likely to be done, with the minimum of injustice to any.

The Relations of Scientific Study to a Professional Life.

Among the entire profession there is here and there one who, during a long and active life, maintains a constant study of some particular science. Most sink into a routine method of practice, careless habits of thinking, following the profession simply as a trade, whose success is measured simply by the net money profits. To avoid these and other analogous dangers that beset the physician's intellectual and moral life, requires from most a constant, energetic effort. In a late address a master in the profession, Sir James Paget, offers some suggestions helpful to such as desire help. (*Brit. Med. Jour.*, October 23, 1880.) "I hold it to be very desirable that every one of us should, all his life long, study some science in a scientific manner. There seems to be no equally good method for maintaining the temper and habits which by making us always good students will make us as good practitioners as we can be. There is no method so good for maintaining a constant habit of inquiry, with accuracy and perseverance in research, the power of weighing evidence, of calmly judging, and of accurately speaking; none better for cultivating the love of truth, the contempt of falacies, whether of others or of our own, the gentleness and courtesy which are appropriate to the consciousness of the imperfection of our knowledge.

"You may say that we can study science in the practice of our profession. So we may, at least some among us may, who, before getting into practice, spent many years in scientific pursuits, and acquired habits which it is very hard to lose; but even for these the study of science in their practice is too much like that which I suppose an astronomer may pursue in some stormy night on a railroad car. For really scientific study, we need repeated observations in unchanged conditions, the right to watch de-

liberately the courses of natural events, sometimes to change that course when and how we please, to set down the descriptions of our object of study, even while we watch them, sometimes to have them at home and ready at hand for revision and refreshment of memory. These and many other conditions for scientific study cannot be had in our practice, in which our first and never ceasing duty must be to do, as soon as we can, all the good we can, though in doing it we may lose or spoil all the best opportunities of acquiring fresh knowledge." The particular science that each shall study will depend upon natural aptitude, special circumstances, previous education, etc.

Drunkards, their Treatment by the State.

What shall we do with the chronic drunkard? For ages this question has been in the minds and hearts of the philanthropic, without ever reaching a satisfactory solution. Asylums have been established on the hospital plan, but thus far they have not attained any considerable success. We have long been of the opinion that, to accomplish any useful purpose, asylums for drunkards must have the power of legally confining them as may be needful for their treatment or to protect their families and neighbors from harm. In brief, certain drunkards should be treated before the law as insane. While the question is one of special interest to the medical profession, others are investigating the subject. From the *Northwestern Law Reporter* we notice an excellent discussion of the subject. It is definitely stated that steps are being taken to present the matter to the next legislature of Michigan in 1881. It is hoped to induce this body to establish an asylum under state control for the relief of these unfortunates. The scope of this legislation is sketched as follows: "Legislature is asked to place dipsomaniacs—persons whom the use of alcohol, or other intoxicants has rendered mentally incapable of performing the duties required of a member of society, or of providing for a family, or who, from their use, have become a burden or a danger—on the same legal basis status as other lunatics, and to extend the authority to place them under restraint and supervision for a lengthened period of time, on the ground that they are persons of unsound minds. Such restraint shall be in appropriate buildings, to be called inebriate hospitals—which shall be branches

of the insane hospitals—where they receive such proper medical and special treatment as is required for the restoration of persons of unsound mind to a condition of sanity. This treatment shall be extended over such a period of time as to insure the permanence of the cure, in case such may be found possible. Should the best directed efforts of their medical attendants show the fact that any cases are incurable, such cases shall be transferred for restraint and protection to appropriate buildings, to be called inebriate asylums, which shall be branches of the authorized insane asylums for the incurably insane. The degree of restraint or confinement, or seclusion, to which they may require to be subjected, can best be determined by the good judgment and experience of their special medical attendants. That in the asylum they be encouraged and required to contribute from their skilled labor, manual or intellectual, to the payment of the expense of the State for their support, even in cases in which they or their relatives may be able or willing to pay for their maintenance." Of course, all possible abuses in the commitment of patients must be carefully guarded against. A little forethought on the part of the profession will enable it to aid in any proper movement, if it does not deem it wise to take the initiative. Apparently the time has come when the subject can be agitated with a prospect of success.

The Illinois State Board of Health and Medical Education.

The act to regulate the practice of medicine in the State of Illinois, gives to the Board of Health the power to decide upon the standing of medical colleges in the way of recognizing diplomas. In the exercise of this authority the Board has thrown out entirely twelve legally chartered medical colleges. For granting diplomas irregularly the diplomas of four other colleges are rejected, in so far as these particularly granted diplomas are concerned. It seems probable that the standard of this Board will be so advanced as to demand a higher grade of medical training. For ourselves we hope that the Board will be satisfied with nothing less than (1) A definite matriculation examination. (2) Three regular courses of lectures, given in the three different years, each course being not less than six months long. (3) A grading of the course of studies ac-

cording to the methods found so successful in our best literary colleges. (4) The requirement of a definite amount of laboratory work, in anatomy, in chemistry, in physiology and in pharmacy. (5) Real clinical work in hospital or dispensary for at least one entire year. We shall welcome most heartily any help from state authority, to advance the standard of the average medical practitioner.

On former occasions we have called attention to those requirements of this Board that have compelled medical colleges to modify their evil ways, or in some cases to abandon them altogether. For all this the Board deserves the hearty support of the entire medical profession. We mistake the signs of the times if other states do not establish similar examining Boards who shall filter the good colleges from the bad, those that really train good, reliable practitioners from those who do little or no training. Encouraged in this way by the State, to do their best as educational establishments, we shall see a vast improvement in our medical colleges in the not distant future.

What are the Difficulties in the Way of Regulating the Practice of Medicine?

On many occasions we have pointed out what we conceive to be the correct answer to the above inquiry. We were interested to notice in the *New Orleans Med. and Surg. Jour.*, that Dr. E. S. Chaille has also reached a similar conclusion, that popular ignorance and popular indifference constitute the real difficulty. He says: "Many of the States have tried the experiment of enacting laws so excellent that nothing more was needed to improve the medical profession except their execution. In 1851 eleven States had had such laws and repealed them; four then had them, but subsequently repealed them. Among these four was the State of Louisiana, as to which it was published abroad, 'no State in the Union is better protected against impositions than Louisiana.' But distance lent enchantment to the view, for the facts were as follows: Louisiana did enact most excellent laws as early as 1808, wisely amended them in 1816, 1817 and 1840, and after forty-four years of experience, repealed them in 1852, without encountering the opposition of any. For such was the execution of these laws that the State was infested with quacks and patent medicines, and

whilst the laws imposed taxes and other burdens upon the good, their penalties against the bad could not be enforced.

It may be argued that all this is now changed by the advance of intelligence. None more than ourselves desires that such may prove to be the fact. Still, there is a possibility of being mistaken. Meantime, we earnestly hope that no opportunity will be lost by medical men for instructing the people so that they may have some correct notions as to their real interest in the matter. Perhaps the best field now open for such work is that afforded by the several boards of health. Here the profession can reach the people in a most effective manner.

In a recent editorial the *Med. and Surg. Reporter* says: "It seems that at present it is not possible to frame laws insuring higher qualifications in their doctors than the public desire. If they prefer boasting charlatans, ignorant pretenders, or unscientific claimants, they cannot be forced to call in others. The true solution of the problem rests in the general education of the masses. When they learn what science is and what the results of correct thinking are, they will require a more and more solid education in medical men, and this demand will, as is usual, bring about the supply."

Meantime we may hope that medical laws will do less harm than good, and that, in their formation and execution, the masses may undergo some involuntary education.

Memoranda.

Page 67, vol. iv, of the *LANCET*, line 33: read "dysenteric diphtheria of intestines," instead of "dysentery, diphtheria, etc."

The carpet in the San Francisco mint, which has been down five years, was taken up last spring, cut in pieces and burned in pans. The debris was put through the same process as the mining dust, and there was got from the old carpet \$2,500.

A writer in the *British Medical Journal* relates an instance in which, while examining a patient with a laryngoscope, the patient threw his head violently backwards, right out through a pane of glass. Though the head was bald it was pulled in uninjured by even a scratch. The writer says that hereafter he will place the examining chair farther from the window.

Mr. W. H. Whittaker, a lawyer, in the August number of the *American Law Register*, adduces the legal evidence showing that "There is no class of professional men more subject to abuse and more powerless to obtain redress than physicians. As the cases now stand, one may bring almost any charge of misconduct against a physician in a particular case, without subjecting himself to an action for damages, per se, provided it does not come within the category of a statutory crime, or impute to him general incapacity."

Dr. Rudolph Wagner, professor of chemistry in the University of Wurtzburg, died last month. He was an eminent investigator and is best known through his *Hand-Book of Chemical Technology*.

It is stated that Baillier, Tindall and Cox, of London, will, at the beginning of the year, issue a monthly journal devoted to laryngology, otology, etc.

How many hours shall children attend school? Chadwick, our best authority, concludes that a child from the age of five to seven can attend to one subject for fifteen minutes; from seven to ten, about twenty minutes; from ten to twelve, about twenty-five minutes; from twelve to sixteen or eighteen, about thirty minutes. The total mental work daily suitable for a young person from twelve to sixteen years of age is placed at from five to six hours.

Prof. James C. Watson, the famous Michigan astronomer, died, November 22, from inflammation of the bowels, it is popularly stated.

A Dr. Desire Voulet, aged 80 years, was called by a midwife to assist in the delivery of a woman in child-bed. While in the midst of the task the doctor had an apoplectic fit. The midwife fainted, and the poor patient died of hæmorrhage from want of timely assistance.

From a comparative analysis of the statistical tables of suicides, for France and Sweden, M. Bertillon thinks he has established the following laws: (1) Widowers commit suicide more frequently than married men. (2) The existence and presence in the house of children diminishes the inclination to suicide in both men and women.

The Philadelphia *Med. Times* says that the inauguration of the preliminary examination

at the University of Pennsylvania has probably frightened away about twenty percent. of the first-year men. Still, those who have entered are a far better educated class than formerly. The second and third year classes have received large accessions from other schools.

The make up of the American Gynæcological Society is described by the Annals of the Anatomical and Surgical Society as follows: "It has an illustrious roll of membership, where some—in fact the majority—were born great, some are achieving greatness and some have greatness thrust upon them. But he who runs may read in the gilt top transactions of this society that greatness in gynæcology is perfectly compatible with infinite littleness of general medical knowledge."

The Tri-States Medical Society, at its late meeting, elected as President, our old friend, Dr. A. M. Owen, of Evansville, Ind.; as Vice Presidents, Dr. David Prince, of Jacksonville, Ill., and Dr. S.H. Charleton, of Seymour, Ind.; Secretary, Dr. G. W. Burton, of Mitchell, Ind. The late meeting was held at Louisville, Ky. The Louisville *Medical News* says that it sees no call for the existence of a Tri-State Society, that it cannot affect any thing which separate State organizations cannot affect, while it serves to detract from the usefulness of these. The Cincinnati *Clinic* says that the profession of Louisville did not manifest any enthusiasm over the meeting of this society, in fact it was noticeable that many of the prominent members of the profession did not attend the meetings.

A death from chloroform is reported in Ballard county, Ky. It was administered for the removal of a wen upon the neck. The patient was thirty-five years old, six feet high and weighed two hundred and thirteen pounds.—*Louisville Med. News*.

Dr. F. D. Lente, in his address before the American Academy of Medicine, September 28th, 1880, in speaking of preliminary medical education, says: "But it is to be feared that the whole affair is a sham, for one of the most prominent colleges in one of our large cities, after cutting it down on paper to very insignificant proportions, has never put it into execution, and as I learn on good authority, does not propose to do so." What

college is here meant? Certainly the profession is interested to know to what extent medical colleges perform the promises they have made in announcements, etc. It strikes us that Dr. Lente would have done more wisely had he openly named the college.

The *Popular Science Monthly* for December, among other excellent articles, contains "Experiments with the Jumpers of Maine," by Dr. George M. Beard; "The Early Practice of Medicine by Women," by Prof. H. C. Bolton, Ph. D.; "Indigestion as a Cause of Nervous Depression," by T. Lauder Brunton, M. D., F. R. S. The latter, especially, is worthy of the careful study of every intelligent person.

The *Kansas Medical Index* is the title of a new medical journal to be started at Fort Scott, Kansas, January, 1881. Dr. F. F. Dickman is to be editor and proprietor. Price, \$1.50 per annum. Pp., from 32 to 40.

At Lansing, Mich., during September, 1880, the annual death rate in 1,000 was 10.24; during October, 7.07.

Dr. G. Delaunay, in a recent address to the French Academy of Sciences on gluttony, classifies gluttons as follows: First, he places prelates and priests; second, diplomatists; third, magistrates; fourth, superior State functionaries; fifth, bankers and financial men; sixth, independent persons who live in idleness on their incomes; and lastly, literary men. His theory is that the greater the intelligence, the more the mind is engaged on brain works and the less disposition there is for gluttony.

The *British Med. Jour.*, October 16, 1880, says that at one metropolitan medical school, at that date, only one subject had been received for dissection, while the number of students in that school waiting for parts exceeded ninety. Evidently the anatomy act of that land needs reconstructing, as more subjects were had under the reign of the resurrectionists.

During 1878-9, India sent to England 3,444 ounces of musk.

The United States Consul at Milan says that the yearly production of quinine and its salts by the whole world is estimated at from 230,000 to 250,000 lbs.; Germany 56,250 lbs.; Italy, 45,000 lbs.; France, 40,500 lbs.; England, 27,000 lbs.; America, 68,000 lbs.; India, 12,500 lbs.

Jamaica cinchona bark was, for the first time, sold in the London markets last September. Though a recent undertaking, the cultivation of cinchona on the island of Jamaica promises well.

Walsh's Physicians' combined Call-book and Tablet for 1880 is before us. The same features that have made it so popular in former years are retained. A list of new remedies, with their doses, renders it more convenient to such as desire to prescribe them. Its shape and general make up peculiarly adapt it to the wants of the general practitioner. Published by Ralph Walsh, M. D., Washington, D. C. Price, \$1.50.

A member of the British Parliament recently stated that there is annually collected in London alone, by voluntary subscriptions, for charitable purposes, nearly \$30,000,000. About \$10,000,000 is contributed in other ways. Thus it seems that London annually contributes about \$40,000,000 for the relief of distress, suffering and poverty. Query? How much of this vast sum ever reaches really deserving objects?

Walsh's Physicians' Handy Ledger has been before the profession for four years. It is intended to serve as a companion to Walsh's Physicians' Combined Call-Book and Tablet; still it can be used with any call book. For general practitioners the ledger is one of the most compact that we have ever seen. Its convenience is even greater than its compactness. It is published by Ralph Walsh, M. D., Washington, D. C. Price, \$3.00.

The *Canada Lancet*, November, 1880, calls attention to the honors which Canadian physicians have received in the States. Thus in the newly organized Michigan College of Medicine, at Detroit, are the following Canadians, viz.: Dr. J. B. Book, formerly of Windsor, Ont., Professor of Surgery and Clinical Surgery; Dr. W. C. Gustin, formerly of Sarnia, Professor of Obstetrics and Diseases of Children; Dr. Charles Douglas, formerly of Streetsville, Ont., Professor of Disease of Children and Clinical Medicine; Dr. D. Laferte, formerly of Amherstburg, Ont., Professor of Anatomy and Orthopædic Surgery; Dr. J. E. Clark, formerly of Norwich, Ont., Professor of Chemistry; and Dr. J. J. Mulheron, formerly of Waterloo, Ont., Professor of Institutes of Medicine, *Materia Medica and Therapeutics*."

Several large dry goods houses in Philadelphia have provided seats for their saleswomen when not engaged with customers. A reporter of the New York *Sun* has interviewed the managers of these establishments and finds that they unanimously report that this plan works satisfactorily, in that the saleswomen have better health and are more efficient.

Dr. Edward Seguin, of New York City, died at his residence, October 28, aged sixty-nine years. He will be remembered by the profession at large for his labors in behalf of the education of imbeciles, for his writings on the use of the thermometer in disease, and for his efforts to procure the adoption of the metric system by the medical profession of this country. The regular attendants upon the meetings of the American Medical Association will hereafter miss the regular annual paper by Dr. Seguin on the latter subject.

In the present furore over neurasthenia, it is worth noting that this disease was first clearly pointed out and differentiated from other diseases by Dr. E. H. Van Dusen, then Superintendent of the Michigan Asylum for the Insane. In his biennial report for 1867-8, under the title of "Observations on a Form of Nervous Exhaustion (Neurasthenia) Culminating in Insanity," he wrote as follows: "Our observations have led us to think that there is a disorder of the nervous system the essential character of which is well expressed by the term given above, and so uniform in development and progress that it may, with propriety, be regarded as a distinct form of disease."

The Guy's Hospital quarrel has at last ended. The medical staff has abjectly yielded to the demands of the lay governors. By the constitution of the hospital, the medical staff is entirely at the mercy of the lay governors, as much as the hall porter or any of the menials of the hospital. They are liable at any time to dismissal, to suppression and to the control of the most absolute kind; they have no voice in the management of their hospital; they have no place in the councils of the governors. They are absolute servants of the governors, with few of the privileges accorded to the higher class of servants. It is strange that the staff did not recognize its slavery ere it entered upon its sham fight.

The *Med. and Surg. Reporter*, October, 1880, in an endeavor to explain the attitude of the medical profession of Philadelphia towards the overthrow of the bogus diploma mills of that city, relates the following: "Nearly ten years ago the then editor of the *Reporter* collected evidence of the illegal action of Buchanan, and personally submitted it to the Dean of one of our two well-known medical schools, asking for moral support and financial backing in pushing the diploma vender to the wall. He got neither, and disgusted and discouraged at such lukewarmness, he renounced the hope of breaking up the iniquitous concern. There are wealthy physicians in Philadelphia, but none of them came forward to supply the sinews of war when needed."

Dr. Parvin says that in this country there is but one school of gynecology, viz., Emmet's. "No matter for the time what and how great Emmet's obligations to that brilliant genius and indefatigable worker, the cosmopolitan Sims; no matter if Dr. Thomas has written the best and most successful book on diseases of women in the English language, and has performed the most original and remarkable operations ever done; still the first only has a school—men especially devoted to his views of pathology and therapeutics, ready to uphold their views with hot water, scissors, conical needles, scalpel, etc., or with tongue and pen. They have faith, admiration and fervent zeal, and withal are brilliant operators. They can be found in New York, Boston, Chicago and elsewhere."

In the year 1363, Guy de Chauliac wrote in the introduction to his work on surgery as follows: "The surgeon should be learned, skilled, ingenious and of good morals; be bold in things sure, cautious in dangers; avoid evil cures and practices; be gracious to the sick, obliging to one's colleagues, wise in his predictions; be chaste, sober, pitiful and merciful; not covetous nor extortionate of money, but the recompense be moderate according to the work, the means of the sick, the character of the issue or event and its dignity." What sounder advice can be offered in five centuries?

The *British Medical Journal* tells the following story of Henry Cavendish, one of the most celebrated of chemists. He was a man of singular, shy and retiring habits. He

would attend the meetings of the Royal Society; but on one occasion, being addressed by a stranger, he immediately ordered his carriage and drove home. His banker once called upon him at his private house, and being refused admission, stated that he came on business of the utmost importance. Admitted, he told Cavendish that there were \$400,000 lying idle to his credit and that the money had better be invested. Cavendish, in a vague and absent manner, answered the senior partner of the largest banking house in London to this effect: "That is your business, sir, and not mine. Please invest the money and do not trouble me again." Lying on his bed during his last sickness, he said to his valet, who answered his summons, "I feel very ill and am going to die; come again in half an hour." The servant, with pardonable anxiety, returned before the appointed time. Cavendish, who was still alive and sensible, observed with some severity: "You have disturbed my last moments; you will please return at the time I ordered." The man returned and found Cavendish dead.

ILLINOIS STATE BOARD OF HEALTH.

To the Editor of the DETROIT LANCET :

At the last meeting of the Illinois State Board of Health, the following resolution was adopted: WHEREAS, It is the legal duty of this Board to issue certificates to persons presenting diplomas from Medical Colleges in "good standing;" and WHEREAS, It becomes thus the duty of the Board to determine as to the good standing of such Colleges; and WHEREAS, Complaints are frequently made to this Board as to the practice and standing of certain Colleges: therefore,

Resolved, That a committee of this Board be appointed to report at the next quarterly meeting the requirements and characteristics which shall, in the judgment of this Board, constitute "good standing" in a Medical College, and also the conditions under which this Board will receive and hear complaints against the standing of any Medical School or College.

The undersigned having been appointed a Committee under the above resolution, respectfully address you, as a prominent member of the profession, asking you to reply to the following inquiries: (1) In the present state of Medical Science and education in this country, what preparation is and ought to be required for admission to the lectures

of a Medical College to entitle it to good standing? (2) On what branches of Medical and Cognate Science ought courses of lectures to be provided, and what length of course on each to entitle the college to "good standing?" (3) What requirements as to full attendance, reading and quizzes, or other examinations, occasional or final, ought to be maintained in such colleges? (4) What attendance on lectures, as to time, number of terms or courses and intervals between courses, are, and ought to be required by such colleges as conditions of graduation? (5) What other conditions of graduation, such as hospital practice or practice under preceptors, attendance on clinics and dissections are and ought to be required for graduation?

An early and full reply will be a favor to the Committee, and we hope also to the best interests of Medical Science. Address reply to Committee State Board of Health, Springfield, Ill.

JOHN M. GREGORY, Chairman.

WM. M. CHAMBERS,

JOHN H. RAUCH.

Springfield, Ill., Oct., 1880.

The Rocky Mountain *Medical Review* tells the following: "A physician visited the session of the American Medical Association held in San Francisco. This man had a classmate, a graduate of one of our medical schools, whom he had heard of as practicing his profession in the above named city. Of course much pleasure was anticipated from the meeting and no doubt felt but that the former classmate was a "bright particular star" of the San Francisco medical world. But alas, no one had ever heard of such a man. All the "oldest inhabitants" were quite sure no one of the name had ever practiced in the city. The physician had almost lost hope, when, a few days after his arrival in the city, the former classmate presented himself at the hotel, sent up his card, but instead of his own name, bearing that of one of the wealthiest and most notorious quacks and venders of nostrums in the city. The physician remonstrated against the course of his old friend and censured him for his departure from former sound ethical teaching. The explanation came, and if not satisfactory, was certainly convincing. Taking the physician to the street, this "sarsaparilla king" pointed out such and such a block,

such and such a building, with the remark: "Those are mine; now what have you obtained as fruit of your laborious life? What have you to show me as a reward for your strict adherence to your code of ethics?"

Editor's Book Table.

The Books Noticed in these Pages are for Sale by E. B. SMITH & CO., Detroit, Mich.

Mackenzie on Diseases of the Pharynx, Larynx and Trachea.*

The author of this work is well and favorably known to the medical profession, by his lectures published in the medical journals and his essays. The work before us is largely based upon these, in scope it aims to be exhaustive. The author seems to be fully conversant with the results attained by other workers in the same field in all countries, and to have freely used them in the preparation of this volume. Thus it may truly be stated, that the author has fairly endeavored to present his readers with a complete statement of our best knowledge respecting the whole subject. The author's style is exceptionally clear and entertaining. The illustrations are fairly executed, but always instructive. We have space for only a few instances of the author's views and practice. Thus, of tonsillitis: its superficial forms generally undergo spontaneous resolution in two or three days and call for little treatment. Cases of deep tonsillitis may usually be cut short by the early administration of guaiacum. It may be given as the ammoniacated tincture or as a powder. In the latter case three grains may be given as a lozenge every two hours. In cases of chronically enlarged tonsils, he has obtained the best results from the local application of London paste (throat hosp. phar.) But even this treatment is tedious so that the excision of the tonsil is the quicker method of effecting a complete cure. To check the hemorrhage which occasionally follows this operation, he recommends the gargling of a solution of tanno-gallic acid. Respecting the relations of croup and diphtheria, he believes that croup is only a form of diphtheria in which the local expression is found in the larynx and trachea, as is often the case in the

*DISEASES of the Pharynx, Larynx, and Trachea. By Morell Mackenzie, M. D., London. 1880. New York: William Wood & Co. Cloth; pages, 440.

nares, (with or without its occurrence in other parts.) The views of both sides are fully and, we think, fairly presented. At this day none can claim that there is any pathological difference between the two affections. Other differences supposed to be based upon the site of the disease and its manifestations he explains on what seem to be tenable grounds. Further, it is well known that ordinary inflammations of the mucous membranes are attended with engorgement of the tissues, and the formation of pus on the surface; under the influence of certain poisonous contagium the inflammation, instead of being attended with the formation of pus, leads to the exudation of layers of lymph, which become adherent to the free surface of the mucous membrane. This disease is called diphtheria and whether the lymph is deposited on the mucous membrane of the pharynx, or larynx, trachea, bronchial tubes or elsewhere on a mucous membrane, or on a wounded surface, the disease is still diphtheria. To suppose that there are two kinds of pellicular inflammation of the larynx, one in which the cause is diphtheritic poison, and the other in which the cause is some other undiscovered influence, is totally opposed to all probabilities.

Respecting the local phenomena observed in laryngeal phthisis, he directs attention to anæmia of the larynx as a pre-tubercular condition of that organ. The existence of such anæmia should always induce the practitioner to make a careful examination of the apices of the lungs. After the deposit of tubercle has taken place to any considerable extent, the appearance is often pathognomonic. The ary-epiglottic folds look like two large, solid, pale pyriform tumors, the large ends being against each other in the median line, and small ones directed upwards and outward. The inter-arytenoid fold is lost in these swellings which interfere with the action of the arytenoid cartilages, and thus prevent approximation of the vocal cords. These suggestions for the more ready diagnosis of phthisis in its earlier stages are worthy of note. Still in the matter of treatment we are told that the prognosis of laryngeal phthisis is always extremely unfavorable; indeed, it is not certain that any cases ever recover. Of one hundred cases observed the duration of life after the throat symptoms had begun to be troublesome, was, in

thirty cases from twelve to eighteen months, in nineteen cases from eighteen to twenty-four months, in thirteen cases from twenty-four to thirty months, in seventeen cases from six to twelve months, and twenty-one cases in from three to forty-nine months. This volume will commend itself to the subscribers of Wood's library of standard medical authors as one of the best of the series.

Jacobi's Treatise on Diphtheria.*

For several years the subject of diphtheria has occupied a prominent place before the profession. The discussions produced, the papers, the investigations, chemical, microscopical and clinical, the books, etc., etc., have been almost endless. In this active work, Dr. Jacobi has occupied an important place. The volume before us fittingly collects the fragments of his work and that of others, presenting them to the profession in a compact and readable form. Thus all may quickly post themselves as to the present state of our knowledge, and utilize it to form a basis for further advances or for better actual practice.

The recent researches of Drs. Wood & Formad are given. From these it appears that "the formation in the trachea of a false membrane is not the result of any peculiar or specific process, but simply of an intense inflammation, which may be produced by any irritant of sufficient power." A general view of the clinical and anatomical facts seems to indicate that the contagious material of diphtheria is really of the nature of a septic poison, which is also locally very irritant to the mucous membrane; so that when brought in contact with the mucous membrane of the mouth and nose, it produces an intense inflammation without absorption by a local action. "At present it seems altogether improbable that bacteria have any direct function in diphtheria." It is, however, possible that they may act upon the exudations of the trachea as the yeast plant acts upon sugar, and cause the production of a septic poison, which differs from that of ordinary putrefaction and bears such relations to the system as, when absorbed, to cause the systemic symptoms of diphtheria.

As to the real etiology of diphtheria the careful comparison of a large number of

*A TREATISE ON DIPHTHERIA. By A. Jacobi, M. D. New York, William Wood & Co. 1880. Pages, 252. Cloth, price \$2.00.

cases gives the following results: "(1) Diphtheria is contagious, and highly so under certain circumstances. It is also infectious, although not to such a degree as scarlet fever, measles and small-pox. (2) The other circumstances being favorable, a moist soil assists in spreading the disease, be the moisture a natural condition or brought about artificially, and particularly when the substratum is of an impermeable nature. (3) A positive connection between diphtheria and filth cannot be verified, although the latter but adds to the evil influence of moisture. The contamination of spring water by human excrements, and of the atmosphere of the bed chamber by the emanations from sewers, require further study. Several reports point to septic infection by drinking contaminated water. Cold and dampness constitute an etiological factor in children, and in individuals predisposed to the disease. Yet the statements concerning wind, temperature and weather do not allow of any definite conclusions. (4) Other circumstances being equal, natives of a place and strangers to it are affected alike. (5) Differences in the course and termination of the disease depend on the idiosyncrasy of the individual or family, on age and on strength. (6) Atmospheric conditions exert an influence which is not yet thoroughly comprehended. (7) In adults the disease occurred less frequently and in milder form than in children. The disease was seen in babes of five, seven and nine months." An important feature in the preparation of the work is the careful summaries that conclude each chapter. We were struck with the evidence adduced to show the identity of croup with diphtheria, or that croup is only a form of diphtheria affecting the larynx. Whether the personal views of the author are accepted or rejected, all physicians will be both interested and profited by a careful reading of this volume. We can the more strongly commend it, because it is so well condensed, "much in little."

Gamgee on the Physiological Chemistry of the Animal Body.

The work before us considers physiological chemistry from the standpoint of the biologist and physician, rather than that of the chemist; hence, its classification is based entirely upon morphological or physiological considerations. Still, all chemical facts and

chemical speculations which are likely to throw any light upon any biological question are fully stated. The present volume "treats of the chemical composition of the elementary tissues of the body, and the chemical processes relating thereto. Within a year, the author tells us that it will be followed by a second volume treating of the chemistry of the chief animal functions." The work is original, in that the author has himself tried all the experimental processes mentioned in the work, and added thereto the results of his own independent researches, and in that in most cases he has referred to the original memoirs rather than to text books. An especial, valuable feature is the prominence given to the description of the methods which have been followed in important researches. The subjects considered are, the proteids, the blood, the lymph and chyle, pus, the connective tissues, the changes of bone in disease, the epithelial tissues, the contractile tissues, the nervous tissues, and the peripheral terminations of certain nerves, as the eye, the ear, etc. As might be expected, the blood occupies about half of the entire volume. It embodies all the latest researches respecting blood coagulation, the enumeration of blood corpuscles, the study of blood by the spectroscope, the changes of the blood in general and special diseases, as anæmia, rheumatism, gout, fevers, diseases of the heart, of the lungs, liver, kidneys, etc. Lastly, we have an excellent description of all the best ways for studying the blood under these varied conditions. After reviewing all the diverse views concerning the coagulation of the blood, he says: "It would appear that, on the whole, the evidence is decidedly in favor of the view that the coagulation of the blood is dependent upon the presence in the plasma of a protoid body, fibrinogen, which under favorable circumstances undergoes conversion, or perhaps decomposition into fibrin. The conversion of fibrinogen into fibrin outside the body appears to be connected with the action of a ferment produced in the colorless cells of the blood, and probably only set free when these cells break down." Again, as to the coagulation of blood within the vessels, he says: "No facts appear so consistent and satisfactory as those which connect the colorless corpuscles of the blood with the development of a ferment-like body, which, once liberated, soon converts soluble

into insoluble protoid matter, the development of ferment being apparently connected with a disintegration of certain of the colorless corpuscles." The structure of the red blood corpuscles he gives as follows: "It consists of a cavernous mass, or stroma, denser at the periphery than the center, whose external boundary or limit appears as a sharp contour. It is colorless and highly elastic; it is albuminous in substance, and generally admitted to be non-contractile. In the central trabeculae of the mass the nucleus is imbedded in those red corpuscles which are nucleated. The interstices are quite filled by the colored substance of the corpuscle, which, under certain conditions (cautious irrigation with water, or with boracic acid of 2 per cent.), retreats from the edge upon the center in a more or less regular manner. The stroma has been called by A. Brücke the oekoid, and the contained colored matter the zo-oid."

Concerning the relation of muscular exercise to the excretion of nitrogen, he says: "Muscular exercise somewhat enlarges the total excretion of nitrogen. There is no reason to doubt that this enlarged excretion is due, in the last instance, to the degradation of muscular tissue; but the degradation is far too small to account, by mechanical equivalent, for the work done in contraction. Moreover, it appears that the actual elimination of waste nitrogenous matters does not coincide with or closely follow, the period of muscular contraction, sometimes perhaps most frequently, the immediate effect of exercise is rather to diminish the elimination of nitrogen, and to postpone the enlargement of excretion for some hours, or even days. The formation of nitrogenous matters in muscle, and their elimination at the kidneys, are separate operations conducted by different protoplasmic structures. The conditions favorable to the one are not necessarily favorable to the other; blood for example, is received into muscles in large quantity during contraction, and at the same time is diverted from the kidneys. It is as probable that the kidneys act ill during excessive muscular exertion as that digestion is imperfectly performed in the same circumstances. Further, the formation of urea, the end product of nitrogenous waste, takes place in all probability in several stages of which the earlier only have their seat in the muscle

itself. From the foregoing it will appear that the subject matter of this work is fundamental to a vast number of very common and practical questions. We do not see how any one in the profession, who attempts to keep pace with modern research, can afford to neglect its careful study. For a scientific book it is written in an extremely entertaining style. The illustrations are excellent and the mechanical execution does credit to even the publishing house of MacMillan & Co.

Ranney's Surgical Diagnosis.*

A medical book that passes through two editions in one year needs no farther testimonials as to its popularity. The subjects treated in this work are grouped under the following heads: Diseases of the Blood Vessels, Diseases of the Joints, Diseases of the Bones, Fractures, Dislocations, Diseases of the Male Generative Organs, Diseases of the Abdominal Cavity, and Diseases of the Tissues. The peculiar feature of the work, that on which its peculiar value depends, is the tabular comparison of the characteristic features of closely related diseases or injuries. Thus in Colles' fracture and in dislocation of the wrist, two injuries often confounded with each other to the detriment of both patient and surgeon, we find placed side by side the differences as regards location of deformity, appearance of radial border, crepitus, tumor, length of radius, length of limb, styloid processes. The symptoms in common to the two injuries are an alteration in the length of the limb, an abnormal tumor, local pain and swelling, impaired function and a history of an accident. It strikes us that it would be next to impossible for a man of common sense, having these points thus compared, to blunder in his diagnosis.

In a similar manner the author sets forth all the important surgical affections included under the afore-mentioned heads. In this edition is added a concise enumeration of the etiology and symptomology of each of the more important diseases to which the attention of the surgeon is directed. This book will be of service to all students and all practitioners of surgery. No matter how well posted one is, there are many times

A PRACTICAL TREATISE on Surgical Diagnosis, Designed as a Manual for Practitioners and Students. By Ambrose L. Ranney, A. M., M. D. Second Edition. Revised and Enlarged. New York: William Wood & Co. 1880. Cloth; pp. 471. Price, \$3.00.

when it is very desirable to rapidly run over the points in differential diagnosis. Nowhere else are these so concisely stated as here. The student will here see what must be remembered from all his other surgical reading and surgical lectures. It is a thoroughly good book, worthy a place in every medical library.

Vaughan's Chemical Physiology and Pathology.*

The third edition of this work lies before us. Its abundant popularity is attested by the fact that three editions have been called for in so short a time. The same fact renders it impossible for the author to make many changes in the several editions. The cuts have been bound in the same volume with the text, a matter of some convenience to the student. Otherwise the present edition is very like former ones.

Trousseau's Therapeutics—Third Volume.†

This volume discusses anæsthetics, antispasmodics, neurosthenic tonics, excitants, sedatives and contrastimulants, and anthelmintics. Of the several anæsthetics the authors prefer chloroform. In this they say that they follow the example of the old world. "At present chloroform is adopted for all the purposes of anæsthesia throughout Europe, and ether has but a few partisans; its exclusive use is almost confined to Lyons and Boston."

Respecting the use of anæsthetics in midwifery, they affirm "that in spite of the very free and almost general use—almost abuse—which has been made of anæsthetics by several accoucheurs in England and America, there does not exist in the annals of the art a single case of the death of a woman in labor caused by etherization, nor even a case in which the inhalations caused a moment's anxiety in regard to the woman's life."

The authors, in discussing the virtues of coffee, say that it is able to cure almost all headaches, at least such as are idiopathic and are not the prelude or the symptom of a

fever, an acute disease. But the effects of the coffee vary according to the way in which it is made. If boiled with water in a closed vessel we obtain principally the caffeine, and only a part of the caffeine. This coffee is excitant. That which is made by boiling with free exposure to the air, lets the essential oils escape and takes from the berry a larger portion of the caffeine. Thus, when we desire that coffee shall sustain the strength without exciting to expenditure, it must be prepared by boiling in the open air. This, with its companion volumes, will prove helpful to such as possess other works on the same subject.

Report on Yellow Fever in the U. S. S. Plymouth.*

It will be remembered by most of our readers that yellow fever broke out in the steamer Plymouth under very strange circumstances. The steamer had been on duty in the tropics and several cases of yellow fever had occurred on her. She then returned to Boston in the winter. Here she was thoroughly disinfected by the best known methods, and further, every part of the vessel opened and exposed for a long time to the frost of a very severe winter. But, in spite of all this, as the ship neared the tropics, before she had come in sight of any land, several cases of yellow fever broke out on ship board. A commission was now appointed by the Navy Department to investigate the causes of this phenomenon. The report of this commission is before us. The entire report is worthy of study by all interested in the destruction of the elements of disease, or in preventing their ravages. It appears that in this case the timbers of the ship were very rotten; that the ship was so constructed as to prevent the disinfecting agents from reaching some of the worst decaying spots. It is clear that the germs of disease remained unharmed in the rotten timber, in spite of the intense cold and disinfectants. The report further says that "the use of carbolic acid, chlorine and its compounds, sulphate of iron, nitrate of lead, and chemical disinfectants generally is, however effectual in destroying odors, of very doubtful efficacy in destroying the germs of disease." It excepts sulphurous acid gas.

*REPORT on Yellow Fever in the U. S. S. Plymouth in 1878-9. Washington. Government printing office. 1880. Cloth, pages, 85.

*HAND-BOOK of Chemical Physiology and Pathology, with lectures upon normal and abnormal urine. By Victor C. Vaughan, M. D., Ph. D. Third edition revised and enlarged. Ann Arbor Printing and Publishing Co. 1880. Cloth, pages, 351.

†A TREATISE ON THERAPEUTICS. By A. Trousseau and H. Pidoux. Translated by D. F. Lincoln, M. D. Ninth Edition. Vol. iii. Cloth, pp. 879. New York: William Wood & Co. 1880. Wood's Library Standard Medical Authors.

This seems to have a special power in the destruction of animal or vegetable life. Besides the filling of the vessel with steam at a temperature of 250° Fahr. seems to be a convenient and effective mode of destroying the elements of disease.

Lincoln on School and Industrial Hygiene.*

The hygiene of educational and industrial lives are of the highest importance to a nation's welfare. It goes for the saying that the nation is the strongest whose children and producers possess the most perfect physical vigor. In a practical way this subject has been most woefully ignored. Hence we are delighted to call attention to Dr. Lincoln's excellent presentation of the subject. We regard it as one of the most important of the American health primer series. Respecting education, it is claimed that no theory is satisfactory that does not include the whole child. While parents and churches must look after the religious training of the child, morality must be taught at school. It would be easy to take classes of ignorant, poor children, before they reach the age of street ruffians, and not only to show them, but to convince them of the necessity for truth, peaceable behavior, and respect for law, and of the necessary connection between duty or work performed and the prosperity of one and all. Assuming only sanitarian ground, it is assuredly true that these branches and others that might be named, as punctuality, cleanliness, politeness, and faithfulness to engagements are not things which can be neglected.

Again, the food and drink of the child are mainly beyond the control of public schools. They are not wholly so; and it is the teacher's duty to discourage working in improper hours. More still, it is his duty to regulate the child's needs in school-time, to see if he is faint from want of food, to encourage and teach good habits, and to give opportunity for bodily exercise. "No lower aim should content the child's teacher than that of improving all his faculties and powers bodily, mental and moral." He would do the State a great service who should place the thoughts of this little book deep within the heart of every parent, every school board, every teacher and every scholar over twelve years old.

*SCHOOL AND INDUSTRIAL HYGIENE by D. F. Lincoln. M. D. 1890. Philadelphia: Presley Blakiston. Pages, 150; cloth; price, 50 cents.

Wood's Ophthalmic Test Types and Color Blindness Tests.

These are put up in a neat wooden box two inches by ten inches by twenty-three inches. The test types are all printed on heavy card board, the same size as the box, ten inches by twenty-three. Snellen's letters for detecting the acuteness of near and distant vision, Jaeger's test types, the several tests for astigmatism, eight glasses, concave and convex, with suitable holder, and an abundant assortment of worsted colors with a copy of Holmgren's confusion plate. Thus it will be seen that provision is made for an examination of all the more common defects of vision. It seems to us that by their aid the general practitioner could detect and remedy very many of the more common visual defects. As it is a matter of fact that he must so remedy them, or they will go unremedied, it is to be hoped that many general practitioners will avail themselves of these aids to accurate diagnosis and judicious treatment. These test types are sold only by subscription. Price, \$7; to be had of the publishers or their agents.

The Medical Record Visiting List.*

This list has been designed with great care and issued in an exceptionally elegant style. It claims to have inserted all that is necessary in a pocket memoranda of professional visits and nothing more. Thus we find a brief comparison of English and Metric weights and measures; a comparison of Centigrade and Fahrenheit thermometric scales; an almanac from July, 1880 to July, 1882; a table for estimating the probable duration of pregnancy; the approximate equivalents of small weights; doses of drugs used for subcutaneous injection; doses of common and rare drugs; drugs suited for atomization, inhalation, disinfectants, the urine—amount, color, odor, chemical analysis; poisons and their antidotes, emergencies, facts, Lister's antiseptic solutions, treatment of asphyxia, then follows the main portion of the work for the daily recording of the physician's business. It will unquestionably meet a need of the general practitioner, by its conciseness, its compactness and its beauty.

*THE MEDICAL RECORD VISITING LIST and Physicians' Diary for 1881. New York: William Wood & Co.

Ziemssen's Cyclopædia—English Edition.*

Seventeen thousand pages surely should afford space for a full presentation of the essential facts and principles of the practice of medicine. Yet in the seventeen volumes before us we find more than this number of pages. In our language there is no other such extended work on this subject. Prepared as it was by German experts in the several topics, we really have before us the best thought of the best German medical scholars. What part of this immense cyclopædia, on a proverbially changing subject, will remain of permanent value? (1) The biographical sketches of the several authors will have a lasting value. Nowhere else do we know of so convenient and accurate an account of these leaders of modern medical research. (2) The historical account of the growth of our knowledge of each disease is generally exhaustive, accurate and readable. As this relates to that which is past and unchangeable, the account here found will always be available to the student of the history of the growth of our medical knowledge. (3) Closely connected with the former is the list of books now published, relating to any particular subject. The earnest student of any special branch of practical medicine will derive invaluable aid from this bibliography. (4) The descriptions of the natural history of the several diseases are likely to furnish reliable guides for generations to come. (5) Etiology, of very many diseases, is here stated in the form it is likely to wear for ages. True, in many other diseases our notions are daily changing, without reaching any definite conclusions. (6) Pathology, too, is in many of its features here stated as it will stay. In others, it is and will ever be changing as our knowledge changes. (7) Of treatment, not much is to be expected in books of German origin, or for that matter in any book in any language. It is generally recognized by all scholarly physicians that all the details of each case must be worked out by each attending physician, at the bedside of each individual patient. Still, even in this field these volumes have done much to stimulate better thought, more accurate observation, and an earnest endeavor

for better results. We may not safely follow every suggestion given, but the same is true of any work on the practice of medicine. The best practice at any one time depends upon the then existing state of our scientific as well as our practical knowledge. This knowledge we fain would expect to daily increase. Taken all in all, it is a peerless work, one of which its projectors may well be proud, one that has already done much for American medicine, and its influence shows no signs of waning. It speaks much for the intelligence of the American medical profession that it should so universally purchase this expensive work, and by its writings show that the books had been thoughtfully read and their teachings practically put to the test of actual experience. The manner in which the publishers have done their task deserves the warmest approval. The several volumes have been uniformly issued in the best form of the printer's and binder's art. The large type and leaded lines are positively refreshing to sore eyes. We see that the publishers announce an index to the entire work. It will appear during the coming winter. This will greatly aid in rapid and easy reference to any given subject. All at once appreciate the value of a comprehensive index to such a work. No doubt that most subscribers will at once order the index through the agent nearest them.

Cutaneous and Venereal Memoranda.*

This little book is an endeavor to compress the principles of the diseases discussed into such space that a student can cram for examination in one of the "go as you please" medical colleges. When the colleges require three years of systematic work in college, and "really teach" instead of "simply talk" to students, then there will be no sale for such books as this. It and all books of its kind are but attempts to patch up the imperfections of a ridiculously imperfect system of medical teaching. The extended sale of the book is a lamentable indication of the extent to which such teaching prevails. The authors have done their part well, and the publishers have issued it in a convenient form for pocket use.

*CYCLOPÆDIA OF THE PRACTICE OF MEDICINE. Edited by Dr. H. Von Ziemssen. American edition. Edited by Albert H. Buck, M. D. Seventeen volumes, pp. 1,000 each. Sold by subscription only. Price, cloth, \$5 per vol

*CUTANEOUS AND VENEREAL MEMORANDA, by H. G. Pifford, A. M., and G. H. Fox, A. M., M. D. Second edition. 1880. New York: Wm. Wood & Co. Cloth; pp. 309.

Ophthalmic and Otic Memoranda.*

The author of this little work intended that it should serve the purpose of a dictionary on the subjects treated. Used in this way, it has proved quite serviceable and in its present revised form will be still more so. In so far as it goes, it is accurate and thorough.

Roberts' Compend of Anatomy.†

The author claims for his work that it contains a concise statement of what is deemed essential to the student in following lectures on anatomy, in working in the dissecting room, or in preparing for examinations. We have looked it over, somewhat carefully, and think that the author has not claimed too much for his work. Evidently, he is familiar with practical teaching of anatomy. Alone, the work is misleading, and so, worse than useless; as a companion to Gray, it will be a real aid to the student.

*OPHTHALMIC AND OTIC MEMORANDA, by D. B. St. John Roosa, M. D., and E. T. Ely, M. D. Revised edition. New York: Wm. Wood & Co. 1880. Cloth; pp. 298.

†THE COMPEND OF ANATOMY, for use in the dissecting room, and in preparing for examinations; by John B. Roberts, A. M., M. D. 1881. Philadelphia: C. C. Roberts & Co. 24mo.; pp. 191. Price, \$1.25.

Abstracts from Exchanges.

Prepared by Judson Bradley, M. D., Albert B. Lyons, M. D.
and E. A. Chapeton, M. D.

Physiology.**AXIOMS IN ALL BIOLOGICAL INQUIRIES.—**

Dr. S. V. Clevenger (*Journal Nervous and Mental Diseases*, Oct., 1880) gives these axioms as follows: (1) Sensibility and motility are merely afferent and efferent terms to express the effects of force upon matter and matter upon force. (2) In life a primary object of motion is for procurement of food. (3) Growth depends upon proper nutrition. (4) Multiplication proceeds from growth. (5) Food is any material, gaseous liquid or solid, which tends toward nutrition of the body. (6) Development is a process of differentiation by which the primitively similar parts of the living body become more and more unlike one another. (7) Higher sensory organs are special elaborations with one special function capable of response to stimuli of one special kind. They are developed from the lower kind of sensory or-

gans, and oftentimes still possess the essential structure of that lower kind.

PLAN OF THE CEREBRO-SPINAL NERVOUS

SYSTEM.—Dr. S. V. Clevenger (*Jour. Nervous and Mental Diseases*, Oct., 1880) elaborates a plan of the nervous system as follows:

(1) The primitive sense is tactile and all senses have proceeded from its differentiation. (2) Qualitative differentiation of the nervous organization proceeds dorsally, with a tendency toward the head end. (3) Repetition of parts of a system up to a certain point ceases, and these parts become commissurally united before another system is perfected. (4) The cerebellum is formed from fused hypertrophied intervertebral ganglia. Many sensory cranial nerves pass through this organ and by fusion of these originally separate centres co-ordination occurs necessarily. Excessive development on the one hand, or want of development on the other, places all the ganglionic tubercles and lobes of the encephalon in the third system category. Thus the prefrontal lobe of the cerebrum, the occipital and temporal lobes, the olivary body, the olfactory lobe, the mammillary eminence, the epiphysis cerebri, the tubercula bigemina, the petrosal and casserian ganglia were originally intervertebral ganglia, and still maintain resemblance to these ganglia in many particulars. (5) The pre-frontal lobe is the last intervertebral ganglion to develop. It grows larger in the scale of intelligence and presses the occipital backward, downward and forward, thus forming the temporal lobe. (6) The cerebro-spinal nerves, in some cases, preserve their original projections from and to muscles, but these nerves may have a distribution to the viscera, as has the pneumogastric, but may also project to and from other system centres. The lateral columns of the spinal cord, the tegmentum and crura cerebri in their main mass may thus be regarded as cerebro-spinal nerves of the highest series, having lower system-centres for peripheries. The pre-frontal lobes thus exert an inhibitory control over the highest centres, because such centres are peripheries for the nerves of these foremost ganglia.

THE SENSATIONS OF LIGHT AND COLOR.—

M. Charpentier (*Le Progres Medical—Jour. Nerv. Dis.*, October, 1880) makes an interesting communication on the sensations of light and color. It is known that, in a physi-

cal point of view, white is composed of the mixture of the several simple colors; but this is not the case in a physiological point of view. The sensation of white is a simple sensation, while the notion of colors is the result of a different function and one more complex. The proofs are: (1) White is not a composite color, since it acts on the retina differently from other colors; colors have a limited visual field, varying according to their intensity; white has a very extensive and constant visual field. (2) The sensibility of the retina for white light is the same for all parts of the visual field; the retina is less and less sensitive to colors as we move from the point of fixation. (3) Pathological cases exist in which the sensibility for colors is totally gone, while that for light persists. (4) A colored light, though monochromatic when increased merely in intensity from the zero point, commences when the intensity is very slight to produce a simple sensation of light, and this is the case with all colors alike. It is only when it has reached a considerable intensity that it produces the impression of a specific color. Light possesses, therefore, two modes of action on the eye; it acts on the one hand on sensibility to light, and on the other hand on the chromatic sensibility. These are two separate functions, the first being the simplest and most general, the color sensibility being a more specialized function. The following facts confirm this view: (1) The action of light on the sensibility to light may be increased, the action on the color sense remaining the same; to do this it is sufficient simply to darken the eye for fifteen or twenty minutes. The sensibility to light is then increased, that to color remaining unchanged. (2) On the eye being opened again to the light a sensation of white is added to all colors, which gives to the purer tints a whitened or washed appearance. (3) Finally, the addition of a certain quantity of white light, though rather strong, to any simple color does not alter the sensibility of the eye to that color. There is, therefore, a sense of light distinct from that of color. It is also well known that the skin appreciates in a distinctly different manner the sensations of heat, and that the ear appreciates mere sound and musical notes with two distinct organs. The sensation of white, therefore, corresponds, according to this, to the

activity of the color sense, either on account of a lack of any excitation strong enough, or more often by the neutralization of each other, in a chromatic sense, by two complementary colors.

ANATOMICAL APPEARANCES OF DIPHTHERIA.

—These are well given by Dr. Jacobi, (*Treatise on Diphtheria*, page 133). The membranes, or granular infiltration, are characteristic of diphtheria. Its contents are more or less fibrin, changed epithelium, blood, mucus, and pus. The main changes take place in the pavement epithelium. The epithelium is rapidly renewed as changed. The views of the histologist do not, however, agree about the nature of the epithelial transformations or their importance. The doctrine that the diphtheritic process is caused, excited or aided by bacteria is either sustained or denied by many. The membranes produced by artificial irritation are considered by some identical with, by others to differ from the genuine diphtheritic product. The former view is held by the foremost clinicians. Most organs are liable to participate in the diphtheritic process, the blood, (thin, black); the heart (granular, fatty, hæmorrhagic, thrombotic, endocarditic); the lungs (several forms of inflammation, infarctus, œdema, emphysema); the spleen and sometimes the liver (large, hyperæmic, soft); the kidneys (congested, nephritic); the muscles (ecchymotic, gangrenous, suppurating); the intestine and other viscera. The several forms of diphtheria have a peculiar predilection for certain organs or parts of organs. This predilection depends on the character of the surface and its epithelium. The greater or less amount of elastic tissue, the number or absence of muciparous glands and of lymph vessels, the nature of the epithelium, (pavement, ciliated, or fimbriated), determine the character of the membrane in different locations. Copious secretion of mucus induces early maceration. The vocal cords are apt to serve as resting-places for the diphtheritic poison, but constitutional infection is prevented by the absence of lymphatics, and rapid maceration by that of muciparous glands; nasal diphtheria is apt to be very fatal by the immense net of lymphatics in the Schneiderian membrane, or by direct absorption into the superficial blood vessels. Lymphatic glands swell very considerably, but suppurate but rarely. They

may serve as depots from which resorption and relapses may take place.

MICROPARASITIC INVASION OF THE CORTICAL PART OF THE BRAIN.—(*Virchow's Archiv.*, June, 1880.) Dr. Hugo Ribbert, of Bonn, found in the whole cortical part of a man's brain, who had died in consequence of an apoplectic attack, a large number of rod-like microorganisms. They could be detected only in the blood vessels. Besides, there were imbedded in the whole white substance of the brain a large number of apoplectic cysts, from the size of a pin's head to that of a hazelnut. The patient had an apoplectic attack eight days before his death, followed by paralysis of the right part of his body, and disturbances of vision and hearing. At the same time his mind was disturbed. Whether this was dependent upon the immigration of microparasites could not be determined. Of former apoplectic attacks there was nothing known.

THE PRODUCTION OF DIPHTHERIA IN THE LOWER ANIMALS.—Dr. H. C. Wood (*Phila. Med. Times*, October 25,) gives a condensed account of some researches made by himself and Dr. H. F. Formad upon the above subject. They first attempted to create pseudo-membranous affections in the lower animals by inoculating them with membrane taken from persons suffering with diphtheria. The poison was put in little pockets made with a lancet under the skin, or inoculated by scarification in the mucous membrane of the mouth; in many instances both methods were simultaneously practiced. Thirty-two experiments were made, with six deaths. In no case was anything like diphtheria caused, except that in one experiment there was an exudation upon the trachea, which, while it may have been due simply to a catarrhal inflammation, presented some of the characteristics of false membrane. It has been asserted by Oertel that animals which have been inoculated with diphtheritic material die with their internal organs infected with micrococci, and that the presence of these is characteristic of diphtheria. Drs. Wood and Formad examined the internal organs of the rabbits that died, as well as the blood of those that survived, and found no micrococci, in this agreeing with Curtis and Satterthwaite. In the post-mortem examinations in every case the internal organs were tubercular, and in many cases intensely so; tubercu-

lar disease was also found in the organs of rabbits which were killed some days after inoculation. It is, therefore, a very natural belief that in those cases in which death was long delayed it was due to tuberculosis. It certainly is very possible that when death takes place soon after inoculation it may be the result of a non-specific blood poisoning, and not of diphtheria. In the experiments of Curtis and Satterthwaite death not rarely occurred in a short time; in those of Wood and Formad it was almost always long delayed. The difference may have been from their using smaller portions of the diphtheritic material, and inoculating it less deeply than the New York men. In no case did inoculation in the mouth produce either local or general symptoms. In order to discover whether the diphtheritic exudation acted specifically in the production of tubercle, or whether it merely set up a local inflammation, which formed the focus of infection, small masses of innocuous foreign matters were placed under the skin. In five out of nine of these experiments tubercle was found after death. This large proportion apparently demonstrates the fact that a simple local inflammation may, in the rabbit, act as a source of tubercular infection. When diphtheritic matter was inoculated, inflammation was almost always induced at the seat of the lesion, with the formation of large lumps of cheesy matter; so it is concluded that the tubercles were secondary to these inflammatory foci, and were, therefore, the indirect and not a direct result of the inoculation.

The method by which Trendelenburg asserts that he succeeded in producing diphtheria in rabbits consists in placing the exudation matter in the trachea. In four experiments our observers obtained Trendelenburg's results once. In numerous instances they proved that ammonia is able to produce in the cat and dog as well as in the rabbit, a pseudo-membranous trachitis. Professor Oertel states that the membrane produced by cauterization of the trachea differs from diphtheritic membrane in containing no bacteria. In the recent research, when death occurred very quickly, bacteria and micrococci were less abundant in the traumatic membrane than in that taken from the throat of patients, but when the animal survived some days, and the bacteria had sufficient time to

develop themselves—when, in other words, they were afforded as good an opportunity of growth as in the natural disease—they were abundant, seeming to make up a large part of the bulk of the membrane. If it is possible to produce a fatal pseudo-membranous trachitis by placing the diphtheritic membrane in the trachea, and possible to cause septicæmia by inoculating other portions of the body with the same material, it would appear as though diphtheria might be originally a local disease with a subsequent septic poisoning; and ten experiments were made to determine whether any products of disease of other than diphtheritic exudations are capable of causing pseudo-membranous trachitis. In two of these experiments pseudo-membranous trachitism was caused by the introduction of organic matter into the trachea. In both of the cases in which false membrane was produced, the injected material was pus, and it is noticeable that only four such experiments were made; so that the proportion of successful results was very large, much larger than with true diphtheritic exudation. Trendelenburg found that not only ammonia but also various other chemical irritants are capable of causing the formation of false membrane in the trachea. Many years since, it was proved that the tincture of cantharides would do the same thing. It would seem, therefore, that in the trachea the formation of the pseudo-membrane is not the result of any specific or peculiar process, but simply of an intense inflammation, an inflammation which may be produced by any irritant of sufficient power. This fact certainly is very suggestive in regard to the pathology of diphtheria. It is certain that, as in the lower animals, so also in man, chemical irritants will produce a pseudo-membranous trachitis. We are also well assured that there is no anatomical difference which can be detected with the microscope between the lesions of true croup and of diphtheritic angina. A difference has been believed by some pathologists to exist between the two diseases, in that in croup the membrane separates easily, in diphtheria with great difficulty from the mucous membrane. This seems to arise from a misunderstanding. The mucous membrane of the fauces and mouth has a squamous, not easily detached epithelium, and consequently membrane connected with or

springing from such surface is firmly adherent. The epithelium of the trachea is columnar, ciliated, and detaches with the utmost facility even in the normal condition, if the organ, hence membrane, attached to it readily separates. The membrane of diphtheritic trachitis is always readily detached in the line of the epithelium.

The preparations of Drs. Wood and Formad show that the exudation of the croupous inflammation excited artificially in the trachea is not merely superficial, but also extends below the basement membrane. Some of the best clinical authorities of the day teach that there is no essential clinical difference between true croup and diphtheria, cases commencing apparently as local sthenic inflammation and ending as the typical adynamic systemic poisoning. Every practitioner must have seen cases of angina in which he was in doubt whether to call the case diphtheria or not. The very frequent diagnosis of "diphtheritic sore throat" is strong evidence of this. There have been cases in which diphtheritic matters absorbed by a wound have produced symptoms very closely resembling those of ordinary septic blood poisoning from post-mortem wounds, etc.; there have been cases of the formation of false membrane about wounds, etc., without any known exposure to a specific diphtheritic poisoning, indicating that the systemic tendency to this peculiar form of exudation is capable of being engendered by other than the specific poison of diphtheria. Finally, diphtheria seems to sometimes be produced by exposure to cold. A general view of these facts seems to indicate that the contagious material of diphtheria is really of the nature of a septic poison, which is also locally very irritant to the mucous membrane, so that when brought in contact with the mucous membrane of the mouth and nose it produces an intense inflammation without absorption. Whilst absorption is not necessary for the production of the angina, it is very possible that the poison may act locally after absorption by being carried in the blood to the mucous membrane. Further, under this theory it is possible that the poison of the diphtheria may cause an angina which shall remain a purely local disorder, no absorption occurring; or a simple local trachitis, produced by exposure to cold, or some other non-specific cause, may produce the septic

material whose absorption shall cause blood poisoning, the case ending as one of adynamic diphtheria."

Toxicology.

PRUSSIC ACID AND A NEW ALKALOID IN TOBACCO-SMOKE.—Dr. Le Bon, (*Jour. de Therapeutique—Louisville Med. News*), concludes an elaborate investigation of the above subject as follows: (1) The principles of tobacco smoke, which are condensed by cooling in the mouth and lungs, or in the apparatus destined to collect them, contain nicotine, carbonate of ammonia, various tarry matters, coloring substances, prussic acid combined with bases, and very odorous and very poisonous aromatic principles. In the smoke these various substances are found mixed with a large proportion of the vapor of water and of various gaseous compounds, principally the oxide of carbon and carbonic acid. (2) The liquid resulting from the condensing of the preceding substances is endowed with extremely poisonous properties. It suffices to inject very small quantities into the circulatory system of an animal, or to cause it to be respired for some time to induce death, after the exhibition of the various signs of paralysis. (3) The properties of tobacco smoke, which up to the present time have been attributed solely to nicotine, are also due to prussic acid and to various aromatic principles, especially an alkaloid, collidine. This is a liquid body of an agreeable and very penetrating odor, the presence of which had been exhibited in the distillation of various organic matters, but the physiological properties of which were entirely unknown. It contributes in great part to giving its odor to tobacco smoke, and so penetrating is its perfume that but a single drop suffices to impart a very strong odor to a large quantity of water. (4) Collidine is an alkaloid as poisonous as nicotine. The twentieth part of a drop kills a frog rapidly, producing symptoms of paralysis. Only a few instants breathing induces muscular debility and vertigo. (5) It is to the presence of prussic acid and the various aromatic principles that several phenomena are due, such as vertigo, pain in the head, and nausea which are produced by certain tobacco either poor in nicotine or destitute of it, while other tobaccos rich in nicotine do not produce any analagous effects. (6) The pro-

portion of prussic acid and the various aromatic principles contained in tobacco smoke varies in different tobaccos, those of Havana and the Levant containing the largest doses. (7) The black semifluid matter which condenses in the interior of pipes and cigar holders contains all the substances enumerated and especially large doses of nicotine. It is extraordinarily poisonous, two or three drops sufficing to kill an animal of small size. (8) The combustion of tobacco destroys only a small part of the nicotine which it contains, so that this is found in great part in the smoke. The proportion susceptible of being absorbed by smokers, and which we have determined in our experiments, varies according to the conditions in which these latter are placed. It is scarcely ever less than fifty centigrammes in each hundred grams of tobacco smoked. The quantity of ammonia absorbed at the time is about equal. (9) Of the different modes of smoking, that in which the amount of nicotine and the various other principles absorbed is greatest, is smoking so that the smoke is respired; that in which the proportion is least is smoking a pipe with a long tube in the open air without respiring the smoke. (10) Nicotine kills animals instantly in doses of two or three drops, but in infinitely smaller doses it causes paralysis and death. (11) Tobacco smoke contains about eight liters of oxide of carbon per hundred grams of tobacco burned. (12) Among the most certain effects which the smoke of tobacco determines in the long run in man may be mentioned visual disturbances, palpitations, tendency to vertigo, and especially diminution of memory.

Action of Remedies.

ON THE ACTION AND PROPERTIES OF TANNIC ACID IN THE ANIMAL BODY.—By Dr. L. Lewin.—The chemical and physiological action of tannin in the animal body is only partly known, though there are a number of pending controversies about it bearing a fundamental importance, that should be settled. This state of things induced the author to make his researches. The following are some of the results obtained: "The official tannic acid contains larger quantities of gallic acid and sugar, therefore, four ounces of it were dissolved in one liter of a mixture of water and a saturated solution of common salt and for several days put into a dark place. The clear solution is then separated

from the precipitate and [saturated with pure chloride of sodium. The tannic acid is precipitated as a light yellow amorphous mass while the chloride of sodium keeps all the gallic acid in solution. The precipitate is now dissolved in water, again precipitated by chloride of sodium, the precipitate dissolved in a watery solution of chloride of sodium, filtered, shaken with acetic ether, the latter evaporated and the acid dried over sulphuric acid. Tannic acid precipitates albumen and albuminous substances, gelatine, etc. The precipitate is not soluble in water but in acetic acid and in an excess of albumen or gelatine (the obtained solution has a somewhat acid reaction), in diluted lactic acid, in carbonated and caustic alkalies. An addition of alkali to tannic acid alters its property of coagulating albumen and gelatine as it has no more an apparent action upon these, though it preserves its astringent taste. Pepsin is influenced by tannin in the same manner as albumen. The precipitate in a solution of pepsin, caused by tannin, is soluble] in diluted muriatic acid ($\frac{1}{10}$ per cent.) But tannic acid causes no precipitation when, before its addition, a solution of peptons is acidulated by muriatic acid as happens in that found in the stomach. In blood and lymph occurs a coagulation of their albumen only after their alkalinity has been neutralized by tannin. The antiseptic properties of tannic acid were for a long period doubted, as its solutions became moldy after a while. But such is likewise the case with the solutions of very poisonous substances, for instance, strychnine, arsenious acid, rhodankalium, etc., and some of our best antiseptics. Putrid substances will be deodorized by tannic acid. Besides it, acts as an antifermentative. When applied locally it influences the circulation by causing a true stasis. The fate of tannin in the animal body must be considered as follows: When a five per cent. solution of tannic acid gets into the stomach, the dissolved albumen, which is already changed to pepsin, will not be altered, as it is in acid solution and cannot in this state be precipitated by tannin. But the newly introduced liquid albumen, that is still unchanged, and that being changed to acid albuminate under the influence of digestion is formed by tannin to tannin-albuminate, provided there will be no excess of dissolved albumen or lactic acid. In the

latter case the formed tannin-albuminate is instantly dissolved again. The tannin-albuminate is successively changed to peptone which cannot be precipitated by the tannin being in solution. The dissolved tannic acid is now ready for absorption. As the alkali of the lymph and blood changes the tannic acid to alkali-tannate and keeps tannin-albuminate in solution, small quantities of tannin will be taken up by the lymphatics and get into circulation as alkali-tannate. Only so much of tannin will be admitted into circulation as can be changed into alkali-tannate by the alkali of the lymph. A portion of the introduced tannin will not be oxydated in the blood to products that do not precipitate albumen, but is either eliminated from the blood under the form of alkali-tannate or afterwards in the urine reduced to tannin under the influence of the hypophosphate of soda. The common tannin, even the purest, contains more gallic acid than is formed from it in the blood. Tannin is found in the fæces only when brought into a full stomach.

Wounds and mucous membranes absorb tannin, and after several applications of its solution to the skin it is even absorbed by this. As more distant actions of tannic acid, must be considered the following: A retardation of the excretion of urine and a diminishing in its quantity as well as its greater concentration, a contraction of the spleen. A limitation of secretion of the mucous membranes of the bronchi and glands. Even if no tannin is found in the excretions of the latter this is no proof against the fact that the said glands may be modified in their activity by tannin. Tannic acid decreases diarrhœa, provided it is dissolved in the alkaline juice of the intestines, acting upon the muscular elements of the glands. The best form under which tannin may be given for a longer period is either tannin-albuminate in solution or alkali-tannate. It is unsuitable to prescribe it as powder. The tannin-albuminate is prepared in the following manner: A solution of tannin in water is precipitated by albumen, and to the precipitate is added an excess of albumen. It will not be decomposed for a long while, but it will be still easier absorbed in an alkaline solution. This will be obtained by adding the carbonate of soda to a solution of tannin until an alkaline reaction is observed. It should every day again be prepared. Finally

a solution of tannin may be precipitated by albumen and the whole mixture dissolved in the carbonate of soda.—*Virchow's Archives*, Vol. 81., July, 1880.

ALCOHOL—ITS ACTION UPON THE CIRCULATION.—Dr. Castillo (Philadelphia *Medical Times*, Oct. 23,) details some physiological experiments from which he draws the following conclusions: (1) Alcohol in small doses causes an acceleration of the pulse, with increased cardiac force. (2) This acceleration of the pulse and the increase of the cardiac force are due to a direct stimulation of the heart. (3) Alcohol in larger doses causes an acceleration of the pulse, with diminished cardiac force, and this is due to the direct depression of the heart. (4) If the dose be excessive the pulse rate is diminished from the first, or the heart may be immediately arrested, being due to a direct paralysis of the heart. (5) The heart is always arrested in diastole. (6) Small doses cause a rise of the arterial pressure. (7) Large doses cause a fall of the arterial pressure. (8) These changes in the arterial pressure are due to the action of alcohol on the heart alone, in the former case being one of stimulation, and in the latter one of depression. (9) Alcohol in small doses is a cardiac stimulant, and in large doses a cardiac depressant.

Practical Medicine.

SYMPTOMS OF ADHESION TO THE PERICARDIUM.—(*L'Union Med.*, Sept. 7, 1880). M. Durozieg furnishes a very interesting paper upon this subject, giving numerous records of cases in detail, as well as the reports of the autopsies when the latter were made. He concludes as follows: Inspection of the pericardial region is very important in the diagnosis of adhesion of the pericardium, and the results should be carefully distinguished from those of palpation. The eye and the finger give opposite indications. The latter gives the sensation of a propulsion where the eye sees evidently a depression. This movement of retreat of the apex and of the pericardial surface during systole is a very good sign of adhesion of the pericardium, but is not absolutely pathognomonic. In very rare cases it exists without adhesion. Hope mentioned it first. As other signs of adhesion we have a continual movement of the pericardial surface, trembling of the apex

during the second sound, sound similar to that produced by compressing a sponge. Sudden death is not rare in this affection. The patients very rarely pass or ever reach fifty years of age.

DEVELOPMENT OF CADAVERIC ALKALOIDS—(*L'Union Med.*, Aug. 24, 1880. MM. Brouardel and Boutmy.)—During cadaveric decomposition certain alkaline substances are formed, which have been called ptomaines. The existence of the latter has been denied. The object of this communication is to show that they do exist, 1, in the viscera of those who have died without poison; and 2, in those who have succumbed by aid of the latter means. Without detailing the numerous experiments which these gentlemen performed, we will simply mention two cases which prove positively the existence of the above mentioned substances: (1) The organs of a man asphyxiated by carbonic oxide were analyzed a few hours after death; no poison was found. Eight days after, the same viscera are examined and are found to contain a solid organic base, presenting the general characters of the alkaloids and capable of killing frogs and guinea-pigs when given in a small dose. Therefore, putrefaction gives rise to organic alkaloids, even outside of poisoning cases. (2) The authors discovered a poisonous ptomaine in a person poisoned with arsenious acid. The same substance was found by Selmi, of Bologna, in two persons poisoned by the same means. Therefore, ptomaines can arise as well in persons who have died without poison as in those who have died from it, even when the latter possesses antiseptic properties like arsenious acid. We can, therefore, immediately see the importance of these substances in medico-legal examinations; the interest which their mode of formation, nature and composition present, and also the means which we must make use of to oppose their production in the time which elapses between the autopsy and the moment when the analysis of the organs is made. The general properties of these ptomaines are those of the organic alkaloids, and frequently their toxic action is not surpassed by that of the most energetic poisons. Some, however, are not poisonous. Speaking generally we may say that they are toxic six times out of ten. Each case of putrefaction does not give rise to distinct ptomaines, for the authors have

found the same alkaloid in individuals dying under absolutely different conditions. They are most frequently volatile, yet some are fixed. One similar to veratrine was found in a cadaver which had been in the water for eighteen months. Another was found in a goose which had undergone the action of heat necessary for cooking. Some of these substances are poisonous to man. In fact, twelve persons who had eaten of the goose above mentioned were seriously poisoned, and one died in the course of two hours, with nothing to explain the fact except the absorption of this ptomaine. One of the surest means to prevent the formation of these agents is the action of cold, and rooms have now been established in the Parisian Morgue in which the temperature is kept at 32° F.

HEREDITARY SYPHILIS.—(*Lyon Med.*, June 6, 1880—*Wolff, of Strassburg*). His work is founded upon a series of clinical observations, which the author has gathered during a period of several years. Wolff divides his cases into three categories. In the first twelve cases, the mothers were free from syphilis, the fathers were syphilitic or still presented symptoms of the disease. In all these cases the children, kept under observation as long as possible, remained absolutely free from the affection. In the second series, the author mentions some cases in which the mothers were affected; the children, of course, were syphilitic. In the third series, twenty-eight cases observed in the clinic of the faculty of Strassburg are reported, from which it appears that women, who become affected after conception, have a better chance of giving birth to living, though syphilitic, children than those who are affected before conceiving. Conclusion: the transmission of syphilis from a father to his children can only take place by infection of the mother. In all cases in which a child is born with syphilis, its mother is or was syphilitic. Wolff never saw a case where such was not the fact. The importance of this assertion, both theoretically and practically, in the question of maternal nursing, is evident to all.

RESULTS OF TREATMENT OF AORTIC ANEURISMS BY GALVANO-PUNCTURE.—(*L'Union Med.*, August 21, 1880.) M. L. H. Petit has collected 114 cases of this kind; in 111, the continued current was employed, and in 3 cases the interrupted. Of these 114 cases,

69 were ameliorated; 38 patients died without receiving marked relief; in 3 cases no results followed, and in 4 the results were doubtful; 39 patients lived less than a year after the treatment, although very much relieved, and 10 lived from one to two years; the remainder survived from two to five years. Among those patients who were kept track of until death took place, the rupture of the aneurismal sac was noted about forty times. It is the most frequent cause of death in these cases. After the disappearance of the immediate accidents, or sometimes even immediately after the seance, amelioration manifested itself in a certain number of cases by diminution of pain and pulsation, and increase of the tumor's consistency, and then progressive diminution in size. This retrograde course of the disease continued in 24 cases after a single treatment, and lasted from two to seventeen months; in other cases three, four and five treatments were necessary; in still others, a dozen sittings were necessary, because the amelioration was short lived after each. The patients in the latter class all died shortly after the last treatment. The intra-thoracic aneurisms gave 30 successes and 7 failures; those which made their way exteriorly gave 36 successes and 31 failures; the proportion of successful cases, therefore, is greater when the aneurism is within the thorax, but, even in those cases which have an external tumor, the percentage of success is 50. The 114 cases represent 292 sittings, or treatments, which, in respect to the immediate result, are divided as follows: amelioration, 186; aggravation, 61; statu quo, 14; not exactly indicated, 31. The relief was particularly felt for the pain; cessation of attacks of angina pectoris, return of sleep, appetite, etc., are also noted. Among the accidents which characterized aggravation of the cases are mentioned increase in size of the tumor, inflammation of the track of the needles, circumscribed gangrene, quite persistent hemorrhages, etc. These accidents occurred particularly when the needles were placed in connection with the negative pole; on the contrary, they were rarely seen when the positive pole was used. M. Petit concludes that positive galvano-puncture is the best process of treatment, which has yet been employed.

TRACHEOTOMY IN CROUP.—Dr. J. H. Ripley, (*Med. Record*), concludes a report on

thirty-five operations for tracheotomy in croup, thus: (1) The operation of tracheotomy on young children for croup, in its imminent peril to life is one of the most dangerous operations in surgery. (2) When the operation itself is safely completed, its secondary effects are not to be feared. (3) From 20 to 30 per cent. of the cases operated on recover. (4) Tracheotomy will permanently relieve more than half the cases operated on. (5) Of those who subsequently die of bronchial croup, a considerable number suffer less than if they had been abandoned to their fate without an operation. (6) It is always a justifiable operation in croup, if the paramount factor in causing death be apnoea. (7) The importance of operating early in the disease has been greatly exaggerated. (8) Early operations are sometimes needless operations. (9) As a rule, any prognosis based on the condition of the child before the operation is unreliable. (10) Nasal diphtheria, per se, does not add to the gravity of the prognosis. (11) Having a specially skilled nurse to attend the patients during the after treatment would increase the number saved. (12) If there be an inflammatory exudative croup in contra-distinction to diphtheritic croup, clinical observation has not enabled me to differentiate it. (13) The medical treatment must be conducted on general principles, none of the pet drugs now in use being in any degree specific. (14) The tube should be permanently removed as soon as respiration can be carried on through the larynx, the only certain test for this being to temporarily remove both canulae, and prevent the admission of air through the wound by stretching a piece of oiled silk or other impermeable substance over the opening. (15) The tracheotomy wound, as a rule, needs no special treatment. If it be the seat of large and troublesome granulations, these may be destroyed with any of the stronger caustics—preferably with nitric or acetic acid.

NON-VENEREAL SYPHILIS.—A writer in the *Boston Medical and Surgical Journal* has collected instances in which infection has resulted otherwise than by the genital organs, as follows: V. Sigmund cited one hundred and sixty-six cases of extra genital primary sclerosis. His assistant, Dr. Mracek, now adds eighty more to the list. Of these, more than half were due to direct contact of syph-

ilitic patients with non-syphilitic persons, such as physicians, wet nurses, ward tenders, midwives pursuing their professional duties, innocent women and children from a kiss, both sexes from scratching, sucking or biting, etc. Mediate contagion from sugar-teats, spoons, nursing bottles, surgical instruments, pipes, clerical water closets, tools (glass blowers'), and possibly toilet utensils; goblets or dishes was less common and, though not always susceptible of proof, in many of these cases immediate contagion could justly be suspected. The reports of Jullien, Lance-reaux, Aime Martin and Fournier swell this list to four hundred and seventy-five cases. Recently twenty-six other cases have been reported.

HISTORY OF DIPHTHERIA.—Dr. A. Jacobi (*Treatise on Diphtheria*, p. 25,) gives the following summary of the history of the development of our knowledge of diphtheria: "Aretaeus is the first whose description of diphtheria has reached us. Asclepiades practiced scarification of the tonsils and laryngotomy. Caelius Aurelianus recognized diphtheria of the pharynx and larynx, and the diphtheritic paralysis of the soft palate. Frequent epidemics are known to have taken place in the second half of the sixteenth century, over the larger part of Europe. Diphtheria of the skin and of wounds was described by Herrera, in 1515. Communication of diphtheria through a wound in the finger is reported by Mercado, in 1608. An autopsy was made in 1642, and membrane found in the larynx. The suffocative, asthenic and paralytic forms of diphtheria were described by Heredia, in 1690. The first cases known in America occurred in Roxbury, Mass., in December, 1659. About that time, and mainly about 1671, the disease was very prevalent. It recurred in 1735, in New England, and never disappeared for any length of time until the beginning of this century. The main writers during this period are Douglas, I. Dickinson, Cadwalder Colden, Samuel Bard, Jacob Ogden, John Archer, Peter Middleton and Richard Bailey. Samuel Bard proved the identity of all forms of diphtheria, cutaneous, pharyngeal, nasal, laryngeal, tracheal. So did Bretonneau, fifty years later, and Trousseau, Louis, Rilliet and Barthey, and all the great clinicians. Contagiousness was never doubted, but mainly sustained by Bourgeoise, in 1823. Virchow

discriminates the catarrhal, croupous and necrobiotic forms, 1847. Graefe describes diphtheria on the conjunctiva and the cornea, in 1854. The main objects of the scientific literature of the subject in the last twenty years have been the microscopical histology and etiology, besides the reports of cases, epidemics and therapeutics.

A CASE OF REMARKABLY LOW TEMPERATURE.—Dr. Kosurew, (*Centrl. fur. Chir.—Med. Times and Gazette*), reports the case of a powerful Cossack, aged thirty-two years, who falling from a height, received a severe wound of the scalp. He lived for five days after, his pulse being only 44, and the temperature exhibiting only, on repeated and exact measurements, from 80 to 83 degrees Fah. On post mortem examination the skull was found uninjured. The blood of the sinuses and dura mater was of the color of tar, and the base of the brain was also gorged with a similar fluid. The medullary substance was of a doughy consistence, and exhibited numerous blood points wherever sections were made.

MALARIA AND CLIMATIC INFLUENCES IN RELATION TO FEVERS.—Dr. G. A. Gordon, (*Med. Times and Gazette*), from extensive observation and study of the above subject, concludes: (1) The precise nature of the entity called malaria remains undemonstrated. (2) In many localities, diseases the character of which is by consent admitted to be malarial, occur in the absence of any possible malaria in the sense of gaseous products of decomposition of vegetable or animal matters; nor are such localities indicated by any characters of their own. (3) This being the case, such diseases, malarial in their phenomena, can only be assigned to climatic and other influences operating in those localities. Hence interchange in regard to the significance of the expressions "malaria," "climate," "climatic," and "endemic" influences becomes readily adopted in the conversation and writings of medical officers and others who serve at such places, although with difficulty appreciated by their more fortunate brethren who are spared that ordeal. (4) But it becomes practically impossible to distinctly draw the line between such diseases as are caused by the malaria of swamps and other malarial districts and such as occur in dry and arid districts, and with atmospheric or climatic conditions peculiar

to them, except in a few instances, and chiefly in the early stages of the attack. Thus as regards fevers, the onset is more ardent in the dry locality than the swamp; heat apoplexy common in the dry, not so in the swampy; dysentery more acutely inflammatory in the former.

THE URÆMIC THEORY.—J. R. Quinan, M. D., (*Maryland Medical Journal*, Sept. 1 and 15, 1880) has a paper discussing the uræmic theory, and in the course of his article pretty much explodes the whole theory, so far as that urea causes the various symptoms of nervous disorders, including vertigo, headache, amaurosis, coma and convulsions, occurring in connection with deranged urinary excretion, whether in disease or the parturient state. Thirty years ago, the doctor says that he was an unquestioning believer of the uræmic theory of blood poisoning, but his observation, especially in diphtheria, has so often shown him cases of persistent albuminuria ending fatally after some days of complete suppression of the urine, by simple exhaustion and without a single so-called uræmic symptom, that he has come to doubt the truthfulness of his early teaching. In fact, the more we know of the disease called Bright's disease the less are we disposed to ascribe the formidable and often fatal nervous symptoms that the paper discusses to the presence of an uncertain quantity of urea in the blood. Numerous experiments and observations have recently done much to prove the incorrectness of the general belief, and Bence Jones declares that "the altered condition of the capillaries gives a more satisfactory explanation of the phenomena than is obtained by the doctrine of a hypothetical blood-poison." Carpenter says that "there is no constant relation between the severity of the symptoms of uræmia and the amount of urea circulating in the system." Roberts says that "the recent experiments of Oppler, Schotten, Perls and Galesky seem to have given the *coup de grace* both to the urea and ammonia theories." Other authorities might be added to the same effect. Physiologists and vivisectionists, when applied to to solve the mixed question, involved us in a maze of uncertainty and of contradictory conclusions, the canine subjects of one experiment dying, as in duty bound, with coma or convulsions, while those of another obstinately refused to become victims

to science and permitted their veins to be injected with thirty or forty grammes of urea without showing any ill effect or other sign, except, perhaps, flooding their premises with an unusual amount of urine. But further, in order to establish the urea theory it is necessary to show that urea is a poison, *per se*—a cause adequate to produce the effect alleged, and also it must be shown that when the so-called uræmic symptoms exist the urea must be present in the blood in excess, and that it is not present in the blood in excess when the uræmic symptoms are absent. But it is believed that it can be shown that urea can be found in the blood without the cerebral symptoms, and also that cerebral symptoms are found to occur where there is not an excess of urea in the blood. If this can be successfully shown, then the whole uræmic theory falls to the ground. Now, without attempting to settle the physiology of the kidneys, or trying to tell where the urea comes from—*i. e.*, where it is secreted—let us look to what urea is. The most important constituent of the urine, urea, is a crystalline substance, very soluble in water, never forming a spontaneous urinary deposit, odorless and always existing in small amounts in the blood, also in the chyle, lymph, saliva, bile and milk. The average daily excretion in adult men is 500 grains, or at the rate of $3\frac{1}{2}$ grains for each pound weight of the body, but this amount may vary within the limits of health from the influence of diet, exercise, external temperature and individual peculiarity from a minimum of 286.1 to a maximum of 688.4 grains, and the amount excreted by a child is in larger proportion according to weight than in the young man in the young man greater than in the adult, in the adult greater than in the aged. The excretion of urea is greater after meals, especially if the food has been largely animal; is decreased by a strictly vegetable diet, and its formation is retarded by sleep, and by tea and coffee and alcohol. Assuming that the blood in the body is 16.19 pounds, and that 450 grains of urea are excreted in twenty-four hours, then there could accumulate only 18.75 grains in the blood in one hour, equal to a very small fraction of the blood weight in the body, and so very small is the fraction that, other things being equal, it is only reasonable to draw the conclusion that the amount of urea excreted in

health is the index of the formative and destructive metamorphosis of tissue. The same statement holds good in fevers, in inflammations and in chorea. Therefore, as increased excretion of urea, in sickness as in health, affords an index of increased metamorphosis of tissue, so also a decreased excretion of urea may, and often does, indicate that the formation of urea is deficient, as often happens in low vital states of the system, which interfere with nutrition. Anæmic blood makes anæmic urine, and anæmic urine contains but little urea. This is peculiarly the case in albuminuria. The average of thirteen analyses made by Christison show:

| | Healthy Blood. | Bright's Disease. |
|-----------------------|----------------|-------------------|
| Water..... | 775.7 | 831.0 |
| Solids..... | 224.3 | 145.7 |
| Blood Corpuscles..... | 137.1 | 82.0 |

And Simon, after giving the analysis of Christison, adds that these analyses agree entirely with his own. Christison also says that he is not acquainted with any natural disease, at least of a chronic nature, that so closely approaches hemorrhage in its power of impoverishing the blood of its red particles. The specific gravity of the urine varies in cases of Bright's disease from 1005.3 to 1014.7, and it is decidedly deficient in solids. According to Becquerel the average of seven analyses of cases of Bright's disease showed

| | Healthy Urine. | Urine in Bright's Disease. |
|--------------|----------------|----------------------------|
| Water..... | 971.9 | 981.94 |
| Solids | 28.1 | 19.08 |
| Urea..... | 12.1 | 6.10 |

Thus showing a decided decrease in all the solids. If time permitted, the same anæmic conditions of the blood and urine could be shown to co-exist in chlorosis and indeed in all anæmic diseases. One peculiar feature in the clinical history of Bright's disease now demands attention. It is this. The amount of urea excreted by the patient suffering from the granular or interstitial variety of Bright's kidney during the acme of the disease is almost normal, while in the case of the large white kidney the urea is much diminished in the amount excreted, yet in the cases suffering from the interstitial variety do we most often find the nervous (uræmic) symptoms. This clinical difficulty remains unanswered and appears to be fatal to the whole uræmic theory, notwithstanding the explanation of Charcot in his lectures

upon Bright's disease. Now, independent of the *a priori* improbability that a bland soluble salt, found not only in normal blood but in still larger quantities in chyle and lymph, and generated in the adult to the amount of 500 grains daily, all of which, whether eliminated rapidly or slowly, must have circulated with the blood, or elsewhere without injury should become suddenly capable of producing poisonous effects. We have positive proofs that we have derived from clinical experience that it is entirely innoxious. Dr. Tanner, of England, employed urea as a diuretic in cases of albuminuria, as also did Prof. Manthner, of Vienna, who gave it in two grain doses every six hours, with complete relief in dropsy and albuminuria. Dr. Tanner remarks that in the human subject a copious diuresis has been the only effect produced in many of the cases in which he employed it (urea), and he has not seen any unpleasant effects whatever produced by it. Christison gives a well marked case of kidney disease dying from coma, in which he carefully analyzed the blood and found the usual dearth of solids, but no urea. Here was uræmia but no urea. There was no other organ involved in the case. The assertion that uræmic intoxication may exist without accumulation of urea in the blood has no clinical or analytical evidence to support it. In conclusion, the urea is found to be innoxious. We have also found that an accumulation of urea may exist in the blood without the production of a single cerebral symptom; and lastly, we find that the most fatal form of cerebrospinal symptoms may occur in albuminuria without a trace of urea in the blood.

CROUP AND DIPHTHERIA IDENTICAL.—J. L. Cleveland, M. D. (Cincinnati *Lancet and Clinic*, October 9th, 1880,) says that formerly he believed in the duality (non-identity) of croup and diphtheria, but has become a convert to the unity of the two; *i. e.*, that they are caused by the same poison, whatever that may be. Quite a number of observers state that they are unable to make any distinction, clinically, between them, except one is contagious (diphtheria) and the other is not (croup). (The advocates of unity number about as many as those who hold to duality in these diseases, or different forms of disease, and where the doctors disagree who shall decide?—Ed.) Among those who hold

to unity may be mentioned Jenner, Jacobi, Thursfield, Kuster, Leitzenriest and Zierl; while Flint, Niemeyer, Oertel, Trendelenburg, Cohen and Oppolzer are very strongly of the opinion that there is duality in the disease, and teach accordingly.

TREATMENT OF HEMICRANIA.—James Stewart, M. D. (Canada *Med. and Surg. Journal*, October, 1880,) gives his experience in the treatment of hemicrania by cannabis Indica. Seeing that Indian hemp is a vascular dilator, it would be indicated in those cases in which there are arterial spasms, and it is, in all probability, only in that class of cases that we expect to get benefit from the use of that drug. In the opposite class of cases, where there is dilatation of the vessels, the neuro-paralytic variety of hemicrania, it would be irrational to order its administration, and, if ordered, it will only do harm. In these cases, ergot is indicated, and if properly used will be certain to benefit, and either in conjunction or alternating with strychnia ought to complete a cure. A good working rule will be found to be this: all those cases that are relieved of the paroxysms by the use of nitrite of amyl are likely to be greatly benefited by the use of the hemp. In those cases the drug should be given continuously for a period of six months, in doses of $\frac{1}{4}$ to $\frac{3}{4}$ of a grain, three times a day. Then the doctor deduces the following conclusions: (1) Indian hemp will cure a certain percentage of cases of hemicrania. (2) It is of benefit only in that class of cases which have vascular spasm as the fundamental condition of their initial stage.

THE TREATMENT OF DIPHTHERIA.—This is well summed up by Dr. A. Jacobi, (Treatise on Diphtheria, p. 231,) as follows: Every case should be treated on general principles, with symptomatics, roborants, stimulants, febrifuges, externally, internally or hypodermically. The uncertainty of the termination and the frequency of collapse, or sepsis, prohibit procrastination. Waiting long means often waiting too long. Alcohol is a very important adjuvant and remedy. The dose must often be apparently large, from two to twelve ounces daily, according to circumstances. Depletion is absolutely contra-indicated. Debilitating complications, such as diarrhœa, must be stopped instantly. Mouth and neck must be kept in a healthy condition. Stomatitis, chronic pharyngitis, hypertrophy

of the tonsils, glandular enlargements must be relieved or removed preventively. Acute catarrh of the mouth and pharynx requires the use of potassium or sodium chlorate, in doses not exceeding a scruple daily for a child of a year, one to two drachms for an adult. The single doses must be small and very frequent, every hour, half or quarter hour. Large doses are dangerous, result often in nephritis, and have proved fatal. The main indication in local diphtheria is local disinfection. To disinfect the blood effectively we have no means. Salicylic acid changes into a salicylate which is no longer a disinfectant. The amounts of disinfectants required to destroy bacteria is so great that the living body could not endure them. But the discipline of the house, school and social intercourse can be so modified as to prevent the spreading of an epidemic. The inhalation of steam is very useful in catarrh of the respiratory organs, and also in inflammatory and diphtheritic affections. In fibrinous tracheo-bronchitis it has proved quite successful. But it may also prove dangerous by excluding oxygen and overheating the room or tent. Drinking large quantities of water, with or without stimulants, also incites action of the muciparous glands and aids in macerating membranes. The internal use of ice, and its local application to the affected parts can be very useful. But the cases must be selected for each and any of the remedial agents and applications. The use of baths, and the cold and hot pack, is controlled by general indications. The usefulness of lime water and lactic acid has been greatly overestimated. Glycerine is a valuable adjuvant, both internally and externally, but nothing more. Turpentine inhalations are deserving of further trials, though they are more effective in purely inflammatory than in diphtheritic processes. Inhalations of chloride of ammonium act favorably in catarrhal and inflammatory conditions, and deserve a trial for the purpose of aiding maceration of membranes. Mercurials are contra-indicated in the septic and gangrenous forms of diphtheria, but in those which assume the purely inflammatory character with less constitutional debility and collapse, as in sporadic croup or in fibrinous tracheo-bronchitis, some reliable clinicians claim good results. Astringents, such as alum, do not work favorably. Chloride of iron is amongst the most reliable antiseptic and astringent agents. Small doses

at long intervals are quite useless. Moderate doses frequently repeated have a satisfactory general and local effect. A child of a year must take at least a drachm daily; a child of three or four years, from two to three drachms. The same or larger doses for an adult. The chloride is to be mixed with water and glycerine, in various proportions, so that a dose is taken every hour, every half-hour, every ten minutes. Thus, the local applications to the throat become almost superfluous. Potassium or sodium chlorate, half a drachm to a drachm daily, may be added with advantage. Carbolic acid is useful both in local and internal administration. According to the end to be reached, it may be used either in concentrated form or in a one per cent. solution. Internally, in doses of a few grains to half a drachm daily. Salicylic acid acts as a caustic when concentrated; in moderate solutions it destroys fetor; salicylates are anti-febrile only. The antifebrile effects of quinine are not so favorable in infectious as in inflammatory fevers; its antiseptic action is not satisfactory in practice. Deliquescent caustics are dangerous. Injury of the healthy mucous membrane must be avoided. Mineral acids, and particularly carbolic acid, when their application can be limited to the desired locality, are preferable. Bromine, both internally and externally, is warmly recommended by Wm. H. Thompson. Boric acid, in concentrated and milder solutions, has been recommended as a local application to membranous deposits generally, and to the diphtheritic conjunctiva in particular. Membranes must not be torn off, and not removed unless they are nearly detached. Caustics are contra-indicated, except where their application can be limited to the diseased surface. No healthy part must be torn. Swelled lymph glands require ice, iodine, iodoform, mercury, poultices, incision, carbolic acid, according to circumstances, and at all events frequent and careful disinfection of the mucous membrane from which their irritation originates. Diphtheria of the nose is apt to be fatal, unless careful treatment is commenced at once. It consists of persistent disinfection of the nares and pharynx by injections. The tendency to sepsis forbids a long intermission of them. They must be continued day and night, for one to several days, no matter whether the glandular swelling be considerable or not. Laryngeal diphtheria proves fatal in almost every case,

unless tracheotomy be performed. It is the less successful the more the epidemic or case bears a septic character. Emetics are useful for the removal of the half detached membranes. Diphtheritic paralysis requires good and careful feeding—iron, strychnia, the faradic or galvanic currents, friction, hot bathing. Urgent cases indicate the hypodermic administration of strychnia. Diphtheritic conjunctivitis is benefited by ice and boric acid; cutaneous diphtheria by local cauterization and disinfection, besides general treatment.”

Chemistry and Pharmacy.

PURIFICATION OF SPIRITS.—Berlein states that raw spirits can be readily purified and completely deodorized by treatment with a solution of silver nitrate and subsequent rectification. From two to two and a half parts of the nitrate are sufficient for one million parts of crude spirit, a ten per cent. water solution being employed.

A NEW AND CHARACTERISTIC REACTION OF ATROPIA AND DATURIA.—Dr. D. Vitali has recently contributed some important results of his researches on the reactions of atropia and the allied alkaloids, which are summarized as follows (*Bolletino Farmaceutico—New Remedies*, Nov. 1880): (1) Atropine exhibits, under the action of nitric acid, followed by caustic potassa, a color reaction which is sufficiently delicate and characteristic to justify its adoption in toxicological examinations. (2) The product of the action of nitric acid on atropia is an alkaloidal base entirely different, both chemically and physiologically, from the original atropia. (3) This oxidation product remains unaltered in the organism, and is promptly voided in the urine, in which it can be detected with the greatest facility. (4) Tropic acid likewise shows a handsome reaction, by means of which its presence may be discovered, and which may be used in testing for atropine in those cases in which the latter has undergone decomposition. The method of applying the color test is described as follows: Add to the suspected alkaloid in a porcelain capsule about ten times its weight of nitric acid and heat for a few minutes to boiling. Then continue the heat at a moderate temperature until all the free nitric acid is evaporated. When the capsule has become cold, a few drops of a recently pre-

pared alcoholic solution of potassa are dropped upon the residue, which immediately assumes a brilliant violet color, passing shortly into wine red, and at last to muddy red. Datura gives the same reaction, which is so delicate that it serves to detect ~~eight~~ grain of the alkaloid.

TO PRESERVE AND RENOVATE RUBBER INSTRUMENTS.—According to a Russian journal, rubber instruments which have become brittle and lost their elasticity with age, may be restored by immersing them for a short time (a few minutes to an hour) in a mixture of aqua ammonia, one part, and water, two parts.

NOTES ON PAPAIN AND PAPAW JUICE.—The properties of papain as a peptonizing agent are already familiar through the researches of M. Bouchut. Recent experiments by H. J. Rose, (*Canadian Pharm. Jour.*, Oct., 1880) show that papaw juice has the property also, like diastase, of converting starch into sugar. In proof of this statement the following experiments are adduced: (1) Five grains of starch were boiled in two fluid drachms of water, and when cooled to 100° Fahr., five grains of dried papaw juice were added and the temperature maintained. In half an hour the solution was quite thin, and in an hour, iodine no longer gave a blue coloration. (2) and (3) The same quantities, were similarly treated, with the addition respectively of five grains of glycerine and five minims of alcohol, with similar results. (4) Ten grains of starch, similarly treated, was decomposed by the same quantity of the juice, after a somewhat longer action. (5) Fifteen grains, under the same treatment, was nearly all decomposed. (6) Five grains of starch, similarly treated, but allowed to cool, gave a similar result. (7) Five grains of starch, similarly treated, with the addition of three minims of diluted hydrochloric acid, showed but slight action after three days. Wurtz, who has studied carefully the digestive principle of the papaw juice, finds it to have a composition nearly identical with that of albuminoids, and that its behavior with re-agents is similar to that of albumen or a peptone. It is very soluble in water, the solution, even when diluted, frothing abundantly on agitation. It is not coagulated on boiling, although the solution becomes turbid. It is precipitated by the mineral acids, except common phosphoric

acid, the precipitate dissolving in an excess of the acid. Corrosive sublimate does not precipitate it immediately, except by the aid of heat. Ferrocyanide of potassium and acetic acid conjointly precipitate it. Copper sulphate gives a violet precipitate, which becomes blue on boiling and dissolves in an excess, yielding a blue solution. In its action upon albuminoid matters, Wurtz says that papaine approaches the pancreatic ferment named trypsin by M. Kühne. Unlike pepsin, trypsin appears to approach the albuminoid matters; its action upon the latter appears to be more energetic than that of papaine. Papaine dissolves large quantities of fibrin rapidly, even in a neutral liquid, but to get a liquor that will not give a precipitate with nitric acid, it is necessary to use a relatively large quantity of papaine—for example, 3 grains for 100 grains of moist fibrin—and to prolong the digestion at 50° C. during twenty-four hours. M. Bouchut has discovered that the milky juice of the common fig, like that of the papaw, has the property of converting fibrin, etc., into peptones. In one of his experiments five grammes of the juice were made to digest not less than 90 grammes of moist fibrin.

PURE PHOSPHORIC ACID.—According to A. Ditte, pure phosphoric acid may be easily obtained by saturating a solution of sodium phosphate with hydrochloric acid gas, decanting the clear liquid from the precipitated common salt, and distilling off the excess of hydrochloric acid. This method would seem to be particularly applicable to the preparation from the commercial phosphoric acid, which often contains a large per centage of sodium phosphate, of a pure article.

PTOMAINES.—When cadaveric decomposition takes place, certain alkaline substances are formed which are called ptomaines. Since these resemble in their general reactions the vegetable alkaloids, a minute knowledge of their properties is important to the toxicologist. A recent paper by M. M. Brouardel and Bouting, read before the Scientific Congress of Rheims, adds something to our hitherto scanty knowledge of the subject. The authors find that ptomaines may be formed in the viscera of persons who have died from poison, as well as in those whose death has been from another cause. The ptomaines not only resemble the poisonous alkaloids in their chemical reactions, but

they are themselves sometimes deadly poisons. Ptomaines are in most cases volatile, but not invariably. Once, for example, a ptomaine analogous to veratria was found in a body that had been eighteen months in the Seine. Some of the poisonous ptomaines appear to be formed very rapidly, even during incipient putrefaction, and probably give to tainted meats, fish, etc., the active poisonous properties they occasionally manifest. The following are among the illustrative cases reported by the authors: (1) The internal organs of a person asphyxiated by charcoal fumes were analyzed a few hours after death and found free from poison. Eight days after, the same viscera were exhumed and proved to contain a solid organic base, presenting the general character of the alkaloids, and poisonous enough to kill, even in small doses, frogs and guinea pigs. (2) In a subject poisoned by arsenic, a ptomaine was found, agreeing in properties with ptomaines met with by Prof. Selmi, of Bologna, in two subjects also poisoned by arsenic. Further researches are promised in this field, which opens so many perplexing questions in its medico-legal bearings.

Nervous Diseases.

WHAT INFLUENCE HAS RACE ON INSANITY?—Dr. E. C. Spitzka, (*Jour. Nerv. and Mental Diseases*, Oct., 1880), presents the results of a study of this question, in the New York city asylum for the insane. He finds that, on the whole, the different forms of insanity occur in the same proportions, nearly, in the Anglo-Saxon, Teutonic, Celtic and Hebrew races; paralytic insanity is most common among Anglo-Saxons, and least common among negroes; melancholia is most common among the Germanic peoples; the tendency to terminal dementia is greater in the Anglo-Saxon than the German or Celt; and the forms dependent upon hereditary taint are most common among Hebrews. With this it is in accord, that since that termination in dementia and the influence of heredity are the factors which chiefly cause an accumulation of the insane population, that the Hebrew and the Anglo-Saxon should have the highest proportions insane of their respective populations.

FUNCTIONAL DISEASES OF THE BRAIN.—Dr. Benj. Ball, (*Brit. Med. Jour.*, Oct. 30), calls attention to a series of facts, in which

clear, distinct and definite perturbations of nervous activity have arisen in consequence of contraction of the vessels supplying certain parts of the encephalon, without structural change, either to the vessels themselves, or in those parts of the brain the functions of which were momentarily suspended. Three cases are given illustrating the subject. All were males, men of sound cerebral health, of regular habits, and earning their daily bread by hard manual labor. The writer concludes: (1) Spasmodic contraction of the brain vessels may be produced by moral impressions—fear, anger, or grief; and also by the prolonged action of severe cold. (2) All the symptoms of organic injury of the brain may be created by functional ischæmia. (3) Mental disturbance of a peculiar kind, and especially lowering of the intellectual power, as apart from insanity, may be the result of this process. (4) Spasmodic contraction of the brain vessels, when once induced, may persist for a considerable length of time without producing structural change in the nervous centres. (5) This morbid condition may in certain cases suddenly disappear; while it is not unreasonable to suppose that the converse may be equally true, and that the symptoms may culminate in rapid or even sudden death.

Surgery.

HERNIA RADICALLY CURED BY THE USE OF HYPODERMIC INJECTIONS.—Dr. J. H. Warren (*Med. and Surg. Reporter*) reports good results in the treatment of hernia of all kinds by the hypodermic injection of various fluids into the tissues in front of the hernial rings. For infants he uses an aqueous solution of oak bark; for children from five to fifteen, the extract of oak bark distilled to the consistence of glycerine, with ten drops of sulphuric ether to the drachm; for old or long standing hernia, congenital or otherwise, a solution composed of four drachms of the last mentioned article, one of sulphuric ether, one of absolute alcohol, with one or two grains of morphia. The syringe is made to hold two drachms, and the needle is spirally twisted and pierced with holes on the sides; the fluid is thus injected on the parts at right angles. This proceeding excites slight fever, and a certain amount of local inflammation. The parts become matted together in such a way as, in the great majority of

cases, to effectually close the hernial openings. After the operation the patient should keep in bed for about a fortnight. The parts should also be supported for some time by a compress and bandage, or light spring truss. Over-exertion or great straining must be avoided for several months, till the rings are consolidated. Of twelve operations reported, all but three were perfectly successful.

OZENA — M. ROUGE'S OPERATION FOR ITS RADICAL CURE.—Translated from the French by A. P. Whittell, M. D. (*Western Lancet*, July, 1880.) Recently M. Rouge, of Lausanne, has called attention to the surgical treatment of ozena, and proved its efficacy. His results are brilliant and his cure rapid and immediate, as well as complete. As no operation on the subject is wholly devoid of risk, so this particular operation is not, owing to the near proximity of the ophthalmic vein and the sinuses. When the bloodless treatment by douches—often long and tedious—fails, the operation of M. Rouge may be resorted to. The operation is described as follows: "The patient having been anæsthetized (M. Rouge uses chloroform), the head is inclined to the right to admit of the free escape of blood. I place myself on the right side of the patient. Seizing the upper lip near the commissure, between the thumb and forefinger of my left hand, I draw the lip upward and forward and an assistant does the same by the other side. The lip is thus raised and stretched. I then make an incision under the mucous membrane in the alveolo-labial fold, beginning above the first molar tooth on the right side and continuing the incision to the corresponding tooth on the left side. The frenum of the lip, which is divided near its insertion, occupies the center of the incision. I then cut rapidly through to the anterior nasal spine, and with one cut sever the cartilaginous septum at its base. Often this will be sufficient. The finger may be introduced to all parts of the nasal fossæ, and when the blood has been thoroughly washed out the parts will be clearly visible. If, however, it should be desirable to have the opening still larger, the lateral cartilages may each be severed by a single stroke at their attachment to the superior maxilla. The nose, thus completely freed, may be thrown back towards the forehead, laying completely bare the anterior surface of its bony cavity. In case the sep-

tum resists the raising of the nose, it may be divided with the scissors. If any necrosed fragments are visible or can be felt, they may be removed by means of a polypus or dressing forceps or a lever. Carious points may be gouged out. Sequestra will often be found fixed in the narrow passages between the turbinated bones, more or less cemented in by inspissated mucus, which prevents them from being dislodged, and frequently so firmly held are they that it requires no small effort to remove them. It is of the utmost importance to examine with the greatest care the whole interior of the nasal fossæ, as the borders of the ulcerated spots are always thickened, folded and detached to a greater or less extent, otherwise the diseased bony portions may be masked by the soft parts or by fungoid growths, which may explain the negative result of rhynoscopic examinations." (The author assumes that carious bone invariably accompanies the fetid odor found in all cases of ozena.) In one case he found a portion of the necrosed bones held in place by detached and thickened mucous membrane, forming a sort of case or frame. After the diseased bone is removed, the surfaces are touched freely with the pencil of nitrate of silver to destroy fungosities. The cavity is then freed of all debris and the lip allowed to fall back in place. The incision unites readily. No sutures are required. The author finds union complete in twenty-four hours. Of course, care should be taken to place the parts in exact apposition. The local reaction is nil, as is also the general disturbance, and the temperature remained normal. The author details five cases in proof of his position.

FRACTURES OF THE CRANIAL BASE; THEIR ETIOLOGY AND THE REASONS FOR THEIR FATALITY.—Dr. C. B. Nancrede (Philadelphia *Med. Times*, Oct. 23), from an able paper on the above subject, deduces the following conclusions: (1) Vibrations originating in any part of the skull do not pursue the most direct course, although they do follow the most direct anatomical route to the base of the skull, some, indeed, following all the anatomical courses, but the more distant the more feebly, owing to the damping effect of the diploe and other tutamina of the brain. (2) The means for rendering innocuous the ordinary jars of normal motions and many

of the accidental blows, when the force applied is excessive, tend to the destruction of certain parts. (3) Fractures of the base, much more commonly than is usually taught nowadays, start from the base and thence extend to the vault. (4) When the normal route of the vibrations is interrupted by a fissure, those produced by ordinary normal movement, then being prevented from terminating in their proper dampers, injuriously affect, perhaps even slightly lacerate, the brain substance, and thus largely account for the greater fatality of such injuries over those of the vault. (5) These facts should impress us with the necessity for the most rigid enforcement of quiet in cases where we suspect or are certain of a fractured base, where quietude must be maintained for a lengthened time.

TRACHEOTOMY IN DIPHTHERITIC CROUP.—W. F. S. Murdy, M. D., (St. Louis *Clinical Record*, Sept., 1880) reports a successful case of tracheotomy to relieve laryngeal diphtheria. Although the operation was performed late, almost against the wishes of the parents and as a last resort to save life, yet the operation was successful and the life of the child saved. Recovery was complete.

TRACHEOTOMY IN CROUP; RULES AND REQUISITES FOR OPERATING.—Dr. Alex. Hadden (*Medical Record*, Oct 23,) gives the following: (1) Operate as soon as suffocation threatens, if medical agents are unlikely to afford further relief. (2) Place the patient under the influence of chloroform. Then provide and arrange for use the following instruments and articles: several towels, sponges, a basin of hot and one of cold water, a curved bistoury, two scalpels, a director, an artery forceps, plain dressing forceps, two pairs scissors, a tenaculum, several goose quills, well feathered, silk ligatured, and a double silver canula, armed with a tape long enough to reach around the neck of the patient and tie. (3) Lay the patient on a table, two and-a-half feet in height, about the same in width, and long enough for the patient to lie at ease, and so placed that the light may fall upon the part to be operated upon. (4) Remove all clothing from the neck and chest and place under the back of the neck a cylindrical body of say three and one half inches in diameter, and about ten inches long, wrapped in a towel, so that the head may fall backwards, and thus throw the trachea

upward, producing at the same time some degrees of tension of the tissues through which the incision is made. (5) Take up, between the thumb and index finger of the left hand the integument overlying the part of the trachea through which the opening is to be made, and divide it with a sharp pointed curved bistoury, and then, on the median line, work through the tissues and fascia down to the trachial rings, by means of the finger nail, director and scalpel. (6) Open the trachea through the upper rings, paying no attention to the isthmus of the typhoid gland, dividing it unless it be found to be unusually large, in which case it should be pushed downward out of the way. (7) Open the trachea, fix it by means of a strong tenaculum thrust through one of the tracheal rings, just below the crico thyroid cartilage, and hold it firmly until the opening is made and the canula placed in the new made air passage. (8) When the tube is once in place and fastened around the neck by means of tape, the parts should be freed from all blood and mucus and whatever may be in the way, and be kept so by the frequent removal and cleansing of the inner tube. (9) Replace the patient in bed, keep a small sponge, wrung out of warm water as frequently as possible, over the canula; the atmosphere of the room ought to be maintained at a temperature of about 80, and loaded with steam from boiling water containing lime. (10) Make application through the tube, by means of a soft feather, of a solution of one drachm of liq. ferri. sulphatis to one ounce of glycerine to the inner surface of the trachea; this may be done as often as every two or three hours during the day. This application has doubtless been an important factor in the good results obtained. (11) When the air can freely pass and repass the larynx, remove the canula. This is easily determined by excluding temporarily the outer tube, or removing the canula entirely for a few moments, and closing the artificial opening. (12) Let the diet be fluid in character, highly nourishing, and easily assimilated; let it be given in small quantities and at frequent intervals; have the bowels moved at least once a day, either by injection or cathartics. (13) Allow the opening in the trachea to close itself without any aid from adhesive plaster, compresses, or any such agents as might force the granulations to the

inner side of the trachea. Should granulations spring up in the wound after it has closed, after it no longer admits air to pass and repass, apply a little sulphate of copper once a day for several days, protecting the neck by means of a soft silk handkerchief tied around it. The doctor claims results better than ordinarily obtained from following these directions.

Obstetrics.

DOUBLE GESTATION.—Dr. P. J. Murphy, (*Obstet. Gazette*), reports the following: A young married woman had one child four years previously, the last pregnancy was attended with no unusual symptoms except some œdema of the legs. Labor came on regularly, and a child was born weighing about four pounds. . It was very weak and evidently not more than eight months old. About twenty minutes after its birth a four months fœtus was delivered. There was a separate placenta to each fœtus. The patient made a good recovery. Twins had run in the family.

LONG CONTINUED LACTATION; ITS EFFECTS UPON THE OVARIES AND UTERUS.—Dr. W. J. Sinclair, (*Med. Times and Gazette*), reports observations which tend to establish the following: (1) Lactation tends to prevent conception by its influence on the ovaries in retarding their return to the state in which ovulation is perfect. (2) After weaning, the evolution of the ovaries becomes more rapid than it is during any period of lactation. (3) After long continued lactation, its sudden cessation is liable to be followed by a rapid evolution of the ovaries and uterus, giving rise to symptoms of ovarian and uterine hyperæmia. Long continued lactation may cause superinvolution of the ovaries and uterus, resulting under favorable circumstances, in complete or partial prolapse of the uterus.

INCARCERATION OF THE PLACENTA AT FULL TERM.—Dr. G. W. H. Kemper, (*American Pract.*, Nov., 1880), makes from his studies, observations as follows: (1) A very large majority of the cases of placental adhesion are amenable to treatment. (2) Although comparatively rare, yet occasionally cases of adherent placenta do occur which resist our best efforts for its detachment. (3) The physician is not justified in leaving such a case unless, after using milder means, he in-

troduces his hand into the cavity of the uterus and make proper efforts to detach and remove the placenta. (4) Having done this much and his efforts proving unavailing, he is not censurable for his failure. Post mortem conditions confirm this assertion. (5) A very guarded prognosis should be given. A woman with the third stage of labor incompleting is always in a critical condition. (6) In the treatment the words of Blundell are true wisdom: "Leave the placenta in the uterine cavity if it cannot be removed without the risking or bruising or lacerating the uterus, not because it is not an evil to leave it there, but because to leave it in the uterus is a smaller evil than to abstract it with violence; and we had better abide by the smaller evil than to expose ourselves to the greater evil—that of lacerating, bruising, and killing."

RUPTURE OF THE UTERUS.—S. Hudson, M. D. (Ohio *Med. Recorder*, September, 1880,) reports two cases of rupture of the uterus. The first case occurred in the autumn of 1874. When the doctor arrived at the bedside of his patient he found her in collapse and dying. She died in a few minutes. Os uteri slightly dilated. A post-mortem showed what was suspected, that the uterus was ruptured—a rent being found opposite the promontory of the sacrum, running obliquely across the body of the uterus, about five inches in length. The second case occurred in the summer of 1879. The doctor was summoned in haste, only to arrive half an hour too late. The patient was dead and the attending physician had left the house. The symptoms indicated that the woman died from rupture of the uterus, and a post-mortem showed that the uterus had ruptured transversely, on the anterior segment, the rent being about eight inches in length. The rent was just above the os internum. A latent inflammation had so softened a band of the uterus, about an inch and a half wide, extending half way around the uterus, that the finger could be pushed through the uterine substance with great ease. While in the first case nothing could have saved the fœtus but a Cæsarian section, in the last case a timely forceps delivery might have been effected, and saved the child, at least, if not the mother, and the mother would have stood some chance of recovery.

RUPTURE OF THE UTERUS—RECOVERY.—J. F. Baldwin, M. D. (Ohio *Med. Recorder*, September, 1880,) reports a case of rupture of the uterus, followed by recovery so far as rupture was concerned, but by death from cystic kidney, about six months after confinement. The rupture extended across the uterine neck, above the vaginal junction. The patient had been delivered of a dead fœtus. The patient made a fair recovery, and was up about the house in three weeks, only to suffer from a cervico-vesical fistula, and death finally from cystic kidney.

SIGN OF OBSTRUCTED LABOR.—(Canada *Med. and Surg. Jour.*, August, 1880).—Dr. L. Bandl, of Vienna, has recently pointed out a phenomenon recognizable by inspection of the abdomen during labor only, which is of considerable practical importance. He found that in those cases where there exists an abnormal obstacle to the expulsion of the child, such as contracted pelvis, malposition of the child, etc., a distinct transverse furrow appears on the abdomen, about midway between the umbilicus and pubes, just at the junction of the cervix and body of the uterus. This furrow is produced by the wedging in of the cervix into the brim of the pelvis by the presenting part and the concomitant, fruitless, concentric contractions of the uterine body. It occurs only in abnormal labors and affords a valuable indication as to the time and necessity for operative interference, for obviously the undue continuation of this condition would very readily result in the production of a rupture of the uterus. Indeed, Bandl first witnessed this sign after such an accident. In normal labors the presenting part passes into the pelvic cavity and fills out the cervical canal equally, thus preventing the occurrence of a transverse furrow. He has seen this furrow in several cases where there was an excessive obliquity of the pelvis and consequent anteversion of the uterus, a condition simulating in its influence on the progress of labor the minor degree of contracted pelvis.—*Trans. Med. and Surg. Society of Maryland.*

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Original Communications.

A Clinical Lecture on Pneumonia, Bright's Disease and Abdominal Tumors. Delivered in Bellevue Hospital.

BY AUSTIN FLINT, M. D.

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GENTLEMEN:

I PRESENT you this patient merely to show you that he is convalescent. It is the case of pneumonia complicated with alcoholism which I presented before you last week. The patient has not a distinct recollection of everything that transpired during his illness, but he is perfectly convalescent. The lung is resolved, although there is, I doubt not, some dullness remaining. There is a very slight cough, but he is convalescent, and now there is no danger of a relapse. I will make in this connection a few remarks. We have now had two cases of pneumonia pass under our observation, and both are instructive; each instructive in a different point of view. Neither of these cases have called for the treatment which I had occasion to discuss in connection with the subject of pneumonia in the didactic course. Neither of these cases have called for blood-letting, for example, nor will it be likely that any of the cases which I shall present here will be appropriate cases for its employment. In the first place, they come in when the first stage has passed. If they are attacked with pneumonia while in the hospital of course they have some other disease, the pneumonia being simply a complication, and under these circumstances the indications for blood-letting are not present. I state this because there may seem to be some lack of harmony between the two courses, the clinical and the didactic. The instances in which blood-letting is called for are not many, only a small minority, and much more in private than in hospital practice, for the

reasons that I have just stated. The employment of blood-letting is a very interesting and important question. It is a measure which has gone very much out of use, but it is coming gradually into use again, and will, I have no doubt, come quite fully into use when the indications for it are recognized. We should bleed when we find indications for it, but not when the indications do not exist. We are to observe very much the same principles in the practice of medicine as regards that measure which I suppose to be the fundamental principle of statesmanship; we are to try to arrange matters without the loss of blood if we can; if not, and it comes to an emergency, we must not hesitate to spill blood.

Bright's Disease.—We have had our attention, gentlemen, directed somewhat to those affections embraced under the name of Bright's disease—acute and chronic Bright's disease. I shall probably only take up these affections in the didactic course sufficiently to review what we have presented here. I think we can study these cases best here, and, therefore, I have here this morning a patient who will, I think, illustrate very well a certain class of the cases of chronic Bright's disease. Please to keep in mind, in the first place, the divisions of chronic Bright's disease. You know that we have the acute form, and the chronic form. I have not, perhaps, sufficiently called your attention to the symptoms which are distinctive of the acute. We had this brought before us, though, very well last Friday, in the exercises here, but cases will, doubtless, come in which will allow us to go over this more fully in the future. I pass by the acute form of Bright's disease, and will consider to-day some cases of the chronic form.

I suppose that in the minds of most pathologists at the present day there is no doubt that chronic Bright's disease is not a single

disease; that is, that the term includes different forms of disease, and I have before given you the divisions which are usually made. I now repeat that there is the large kidney, which is, perhaps, as good a term of distinction as any; or the large white kidney, but there is an objection to the term white. I have, in the late edition of my work, adopted the term large kidney for this division. Then there is the small kidney, and the large granular kidney, or the waxy kidney, different names for it. Waxy, perhaps, is the best, as it involves no hypothesis, whereas, lardaceous and amyloid do. They involve conjectures as to the character of the disease. It is an interesting and important study to discriminate between these three forms, the large, the small, and the waxy kidney. We can discriminate between them in a considerable proportion of cases, but there are other cases between which one cannot discriminate, and for the best reason in the world, namely, the different diseases are apt to be combined. Pathologists who have given most attention to this subject state that, in other words, we do not often find the purely large kidney without any waxy change, nor do we often find the waxy kidney without those elements which belong to the large kidney, and with the small kidney we find associated the other changes, so that we thus have mixed forms, and when these are presented to us clinically, of course we feel embarrassment in determining to which class a particular case belongs. It is not practically very necessary, perhaps, so far as the indications of treatment are concerned, for they are not very closely connected with the particular kind of lesion, but the prognosis is, and the management is to some extent, so that it is desirable, so far as we can, to make these distinctions at the bedside. We decide that we have a case of chronic Bright's disease. That we can easily determine; there is scarcely any difficulty about that, though there is some sometimes, and then we are to ask ourselves, to which class does this belong? Is it the large kidney? Is it the small kidney? Is it the waxy kidney? And sometimes, and I think this case will give us an illustration, we may be able to determine that we have different combinations; or, at least, we may be able to determine this, that a patient with one of the chronic forms of Bright's disease has

supervening upon that an acute affection, which he is liable to have from time to time.

Here is a patient, a German woman, who does not understand any English, and we can talk of her case just as we like, though I have nothing to say that I know of which I would care not to have her understand. She presents, as you see, the appearance of no particular disease. In fact the appearance of her face is that of a healthy woman; she does not look like a person suffering from any disease, and yet we shall see that this patient has a disease in all probability of long standing.

This patient's name is Mrs. —, fifty-six years of age; the age is important. She is a native of Switzerland; was admitted into the hospital on the 6th of October last. Nothing was ascertained with regard to her family history which has any bearing upon her present disease. Her habits and modes of life—we look into these carefully for certain diagnostic points—she has been accustomed to hard labor all her life. Her occupations have led to considerable exposure during wet and inclement weather. She has been about the streets, and spent a large portion of her time upon the streets, and she says she often suffered from intense cold and moisture. Here, then, we have causes which are to be taken into account. Very unusual habitual exposure to all sorts of weather, poorly clad, probably, and poorly fed, picking up a very precarious living by finding rags and other things about the streets. She has never used alcohol to excess. Perhaps I had better say just now that I regard this as a case of small kidney, cirrhotic kidney, fibroid kidney, gouty kidney, all different names for it. And here we have causes which it certainly seems very rational to suppose may have had some agency in producing that slow change which takes place in the kidney. She has not used alcohol, which is usually regarded as a causative agent, producing particularly this form of kidney; but some writers are in error about that; I mean in error as regards the frequency of the operation of this cause. It has been called even the spirit kidney, but we meet with cases where this cause could not have existed.

Let us see what previous diseases she has had. Eight years ago she suffered during

several months from chronic rheumatism. This we could fairly attribute to her mode of life. She has never had articular rheumatism, nor gout, nor syphilis. We must remember, gentlemen, that the different forms of chronic Bright's disease are sometimes related to other diseases. Syphilis stands in a causative relation to it. The exclusion of that has some weight in determining that a given form of chronic Bright's disease does not exist.

Four years ago she had malarial fever, which was controlled after about two weeks of treatment. Soon after the disappearance of the malarial fever she was attacked with pneumonitis, from which she made a complete, although slow, recovery.

In respect to her present disease, six years ago the patient noticed, after repeated and protracted exposures to unusually intense cold, œdema of her face and lower extremities. It did not appear suddenly, but increased with only moderate rapidity. She also had pain in the back and head, anorexia, with nausea, vertigo, constipation, and increased quantity of urine.

Now, here is a group of symptoms which point pretty distinctly to the occurrence of rather a mild attack of acute Bright's disease. There are lacking some things which we could not get from the history, as the color of the urine, and so on. The increased quantity of urine is not inconsistent with that, but I suppose that this attack supervened upon an already existing chronic affection. These symptoms, although producing discomfort, did not prevent her from discharging her usual duties, and they disappeared after about a month. Recollect that was six years ago. After the disappearance of the symptoms just described there were no symptoms pointing to the existence of renal disease noticed by the patient until two years ago, with the exception of a moderate diuresis. I attach a good deal of importance to that. I have seen cases where the diagnosis was the same as here, where the patients were apparently well. But they passed an increased quantity of urine, and if it had been examined it would have been found of low specific gravity. When you have a patient who has been passing much urine, and has had symptoms pointing to renal disease, although the urine may not contain albumen and casts, it is significant, for this form of

disease, that is the contracted or fibroid kidney, is a form of disease which remains intermittingly, and at the beginning latent, for a long period. I consider that a very important fact, otherwise, if we do not recognize it, we are liable to fall into error, and say, "this patient is well; there are no casts in the urine, there is no albumen." But he is not well; he has a disease which exists there as before, but it is in a latent form, does not give rise to symptoms.

Two years ago the œdema returned, making its appearance slowly and progressively, involving the face, the arms, and the lower extremities. The œdema has not disappeared entirely at any time since then. Then for the last two years this patient has had some œdema; she has now some of her lower limbs, none of her face; she has suffered almost continually from two years ago of cephalalgia, referred chiefly to the occipital region, from dyspnœa, anorexia, nausea, with occasional emesis, tympanitis, constipation, and increasing general debility.

In studying renal affections we are to take into account three things especially: we have dropsy, which stands in a certain relation to the amount of albumen in the urine, not a constant and exact relation, but it does stand in a certain relation, for I have analyzed quite a large number of cases with reference to that point and have found that the albumen in the urine is abundant in proportion as there is prominent dropsy, and vice versa. Well, here we have dropsy, and connected with it, anæmia, impoverished blood. When I shall bring cases before you, as I shall, to contrast the different forms of renal disease, you will see patients with a great amount of anasarca, with pallor of the countenance, showing great anæmia, and presenting the facies which of itself almost tells the story, at once, so that you can diagnose the disease from the appearance of the face with a good deal of positiveness. Well, here is a case of kidney disease which has given rise to dropsy and impoverished blood. Loss of albumen is one of the most important causes of this. It leads to diminution of the red corpuscles, and that leads to dropsy, or favors it. Then, there is another group of symptoms which may have no connection whatever with dropsy. They may occur with or without dropsy. These are liable to occur especially with the small kidney.

They are the uræmic phenomena; impress these upon your mind. A good division of them is into those which are not serious, and those which are grave. The grave phenomena are coma and convulsions, and, as happens sometimes, serous inflammations, as meningitis, peritonitis, acute pulmonary œdema, in some very rare instances œdema of the glottis, pericarditis, pleurisy. There is another group of symptoms which are important from their significance, but not in themselves serious. These are the ordinary manifestations, cephalalgia or headache, nausea, vomiting, looseness of the bowels, cramps in the limbs, imperfect or misty vision. We pay attention to these because they lead us to direct our attention to the kidneys, and they are of diagnostic import as regards the particular kind of renal disease which exists. This patient suffered for two years almost continually of cephalalgia, referred chiefly to the occipital region, of dyspnoea, anorexia, nausea, with occasional emesis, tympanites, increasing general debility. I have omitted giving one symptom to which I have paid more attention of late years than formerly, and to which I think not sufficient attention is commonly paid; that is, certain symptoms of hypertrophy of the heart. Now, this patient has a certain amount of hypertrophy of the heart, as shown by the apex beat being pushed to the left here, and somewhat lower. The area of dullness over the heart being abnormally increased, there is no question but this patient has a certain amount of enlargement of the heart, and that enlargement is not connected with any evidence of valvular lesion. Enlargement of the heart is usually the effect of some lesion of the valves. If when the heart is enlarged we can exclude these, and also enlargement of the right side of the heart, which is associated with emphysema of the lungs, and that we can exclude easily enough, we may conclude presumptively that the patient has disease of the kidney. Remember then, that hypertrophy of the heart, disconnected with valvular lesions, affecting the left side of the heart, is a pretty constant effect of one of the forms of chronic Bright's disease, viz.: the small kidney. It is said by some that it belongs to this exclusively; that we never get it in the other forms. That is probably an error. The statement should be qualified. We get it rarely with other forms. We get

it with other forms when they have existed for a long time, but so infrequently that not much importance need be attached to it. Then this enlargement of the heart, which is secondary to the affection of the kidney, after it has reached a certain degree, gives rise to symptoms, as here: the patients suffer from dyspnoea. If the enlargement has progressed considerably, and the general condition of the system is reduced, and especially if there be also dilatation, the patient will suffer very much from dyspnoea. He may have no dropsy, and nothing in the urine to indicate disease of the kidney. We may have nothing to account for his dyspnoea except cardiac disease, and we might be misled to suppose that the patient had only cardiac disease, whereas the cardiac disease is simply secondary to kidney disease.

Notwithstanding these symptoms, which continued for two years, this patient continued to work until last summer, when increasing asthenia compelled her to remain in doors. Since her admission into the hospital, Oct. 6th, she has presented the symptoms above enumerated.

The urine has been examined repeatedly since she came into the hospital, and has shown granular casts, large hyaline casts. Their diagnostic importance has been exaggerated. The presence of casts in some quantity of course shows renal disease, but a few do not necessarily. It may be well to recollect that. I remember an instance in my own experience where I made an examination of some urine for some other purpose than to determine whether or not there was kidney disease, and I found casts. I was led to think from this that there was disease of the kidney, which was an error, and I took a rather gloomy view of the case. That was many years ago, and the patient is living now. A medical friend who was studying the urine, made a study of his own for a year, being perfectly well. But every now and then he found a few casts in the urine. So that the conclusion is not absolutely to be drawn from the presence of casts now and then that there is any disease of the kidney. It is well, also, to recollect this fact, that in jaundice there are always present casts in the urine. But there is a sharp distinction to be drawn between the different forms of casts in kidney disease, though they may be more or less combined in the

different forms of disease of the kidney. For instance, there is considerable difference between the hyaline cast and the granular cast. Large hyaline casts, which come from uriniferous tubules which have lost their epithelium, are more especially significant of the small kidney. We have them in this patient's urine. The quantity of the urine is also increased, and that is another diagnostic point. It is in the small kidney especially that we have a large quantity of urine. There is also considerable increase in the waxy kidney, but not so much as in the small kidney. In the other form, the large kidney, the quantity is for a considerable time, at least, diminished rather than increased. The specific gravity of the urine is to be taken into account with the quantity. In this case the specific gravity is 1.015, rather low as you see, but the significance would be still greater, were the specific gravity lower.

These, gentlemen, are the points in this case which I wish to impress upon your minds as bearing on the diagnosis of the small kidney, the length of time the disease, as we may fairly infer from the previous history, has existed, the length of time that this patient has had distinctive phenomena which we may consider uræmic—cephalgia, nausea, enlargement of the heart without valvular lesions. I have already referred to this point that the previous history gives us evidence that there existed many years ago an acute affection. Not very acute, for it did not prevent the patient from going about and attending to her affairs. May we not then form the conclusion that this disease commenced as an acute affection, and that we have now the sequela of an acute affection? Well, that is possible, but not probable, because we do not often have the chronic form following the acute, and moreover, if it did, the form would be the large kidney, and we should be likely to have symptoms indicative of that form which are not present in this case. And I want to call your attention to the fact that a patient, presenting evidence of chronic small kidney, is liable to have, from time to time, supervening upon this the acute affection, and then we have changes in the symptoms; we have a larger quantity of urine, with more or less albumen, it occurs to me to say that there is not always regularity about the presence of albumen in the chronic form. But now an acute affection supervenes

upon a chronic, and the albumen in the urine, if present, is increased in quantity. We are also liable to have then epithelial casts in the urine, and perhaps blood in small quantity. With these symptoms pertaining to the urine we have other symptoms. Anorexia will be more complete, if it existed before, or will occur now for the first time; the uræmic symptoms will perhaps be more marked than before, if they existed before, or may develop now, if they did not exist before. If the patient have an enlarged heart there will be more or less dyspnoea. In fact the patient may present a group of symptoms which will lead you to fear a fatal result, and which may lead to a fatal result. But again, it may not so terminate. All the very unfavorable symptoms may pass off, and the patient return to the state in which he was before the acute affection developed, presenting only an increased quantity of urine of low specific gravity. But this polyuria, the urine being of low specific gravity is significant, and I dwell upon these facts because I think they are important. Do not allow yourselves to say, in such a case, that the patient has had an acute attack of nephritis, that it has passed off, and now the patient is well. He is not well. He may, from exposure to hardship, or something else, get up another attack, which may prove fatal; or he may have a series of attacks, or the disease may go on progressively until he has this form of renal disease, and by and by, is suddenly seized with uræmic coma and convulsions, very much to the surprise of his friends and his physician.

Our treatment, gentlemen, must be with reference to the symptomatic phenomena. The patient must be well-nourished. The urine must be watched, and if there be any reason to think that there is not sufficient urea eliminated, attention is at once to be directed to that point. Now, one of the most important points for you to keep in mind in the study of renal disease is this, is the patient eliminating urea enough to be secure against uræmic effects? How is that to be determined? For practical purposes we can determine it very easily, without going through an elaborate analysis of the urine. Take this case for example. This patient has had the symptoms of chronic uræmia. Suppose such a patient comes before us now for the first time, gentlemen, you see at

once what an amount of danger may be involved in this case. The patient may go into uræmic coma which may prove fatal. That question should come up always whenever we have a case of Bright's disease, and especially when there are present the chronic manifestations of uræmia. These chronic manifestations are not always present. The graver may sometimes occur at the outset. How are we to judge of this? Well, roughly, but for practical purposes generally with sufficient accuracy, thus we ascertain what is the quantity of urine passed in the twenty-four hours; we take the specific gravity; we know what is the normal quantity of urine usually passed in the twenty-four hours, and the specific gravity, the quantity about forty to sixty ounces, the specific gravity about 1.018. Now, suppose a patient is passing only twenty ounces of urine a day, of a specific gravity of 1.005 or 1.006. That patient is not passing urea enough, and is in danger, so that we have the important indication to increase the elimination of the urea, by the kidneys, if we can. If it is not safe to wait for this, or it be uncertain on account of their diseased state, it must be eliminated by the alimentary canal, or by the skin. Now, a patient may be passing considerable urine in the twenty-four hours, and even more than the average in health, and the physician may say to himself, there is no danger here, for the patient is passing plenty of urine, but the specific gravity of that urine may be only 1.005. That patient may have at any time an attack of uræmic coma and convulsions. But I have not time to dwell upon these points longer to-day, as I have another case which I wish to present to you, although I shall not have time to do it justice.

When you come to practice medicine at the bedside, gentlemen, and have the responsibility of it involved upon you, you will be troubled a great many times in the diagnosis of abdominal tumors. That is proverbially a field of doubt and difficulty in diagnosis, and errors are very often made, and must be made if we are hasty and commit our minds to a positive conclusion, as medical men at first are very apt to do. It is a pleasant thing to be sure of a diagnosis, the mind likes to be settled in that direction, and early in practice in particular the physician is likely to reach a conclusion which he considers himself sure of, and he commits himself to it fully, and perhaps his conclusion is

never disproved, for in private practice it is only exceptionally that we come to the crucial proof. But it will not do here in this hospital, gentlemen, where there are young men watching the older ones all the time to see if they can not catch them in an error of diagnosis, because it is brought down to the autopsy room. If we commit ourselves too early or too hastily to a diagnosis we either have to get out of it as best we can, or make a frank confession. The latter is by far the better way, because every body must make mistakes in diagnosis. I do not care how large one's experience may be, or how great his acumen as a diagnostician, there are problems in diagnosis which can not be positively solved, and the best way is not to take too much pride in committing one's self early and indiscreetly to a positive diagnosis. Well, these remarks, gentlemen, are preliminary to what we have here. I have seen this patient but once, and I have not made up my mind to a diagnosis in his case, and I don't intend to do so to-day.

But let us have the history, and keep it in your minds. This man's name is Joseph —. He is a tailor by occupation, aged 53 years. He was admitted on the first of November. There is no importance connected with his family history. Three years ago he had, as he states, inflammation of the bowels, and he states that for the last ten years he has had continuous diarrhœa. The next statement I hardly credit entirely. I think there must be a little unintentional exaggeration. He says that for the last ten years he has had fifteen passages a day. That statement, I say, is recorded, but we must take these things with several grains of salt sometimes. He has never passed blood nor mucus in the stools. He never had pain while at stool until four weeks ago. He noticed at that time, when at stool, something come down which obstructed the free passage from his bowels. Three weeks ago his physician discovered a tumor in the right iliac fossa. Pressure upon it caused pain. A few days previous to the discovery of the tumor his abdomen began to swell, and he vomited. He has lost considerable in weight. There is no history of syphilis. He complains of diarrhœa, of vomiting, of swelling of the abdomen, and of a tumor in the right iliac fossa.

Pressing here, this tumor is felt very distinctly. In the first place, I get here resistance to pressure, which shows there is something solid beneath. It differs in feel from the other side. When I percuss over this I get absence of resonance. There is not, therefore, a portion of the intestine between this solid body or tumor and the abdominal wall. That is probably sufficient to exclude enlargement of the kidney. Perhaps you may think it strange to exclude that, but we may have enlargement of the kidney come down as low as this, as in cancer of the kidney. This is distinctly separated from the liver. It cannot, therefore, be an affection of the liver. Of course we can eliminate the spleen, which lies on the other side of the abdomen. I can easily define the borders of this tumor, although the abdomen, as you see, is swelled—tympanitic. It extends clear down into the inguinal region. It is somewhat movable. I cannot get my hand under the border of it, exactly, so as to appreciate what border it has; but, passing my fingers over the surface, I can appreciate distinctly that it is lobular; it is not a continuous smooth surface; it is a lobular tumor.

Well, what occurs to the mind calling for differentiation? Carcinoma, of course, suggests itself. With reference to that, we must take into account the presence, or not, of the cancerous complexion, loss of weight, and so on. The patient has lost weight, but it is difficult to ascertain how much. He certainly has not the cancerous complexion. Then we have the evidence here of some other trouble which has existed for a long time, ten years. But we have not any ground for concluding that this tumor has existed so long a time. I suggested carcinoma, but did not find much in the history to sustain it, although this is a good location for carcinoma. Then another question comes up. May it not be an impaction of fæces in the cœcum. Well, this tumor is known to have existed there three weeks. How much longer we know not. The question would arise in your mind, could there be such a tumor so hard as this, which is very hard and resisting to the touch, and exist that length of time—three weeks or more? Yes; we can answer that question in the affirmative. I have had occasion to meet with fæcal tumors which had existed that length of time, which were so hard and resisting. I have known not a few

instances in which an error has been made in supposing a fæcal tumor a malignant tumor. So there are certain diagnostic criteria relating to the tumor which we are always to think of: Is it movable? Is it capable of being indented with the finger? And so on.

As said before, I shall not form any opinion regarding what this may be at present, but it will be well first of all, to take certain steps with reference to determining the question whether it be a fæcal accumulation, or not. We can exclude intussusception. Intussusception, in the first place, would not be likely to occur at this age, and it would be likely to give rise to symptoms which do not exist here. I know we may have an impaction of the rectum with diarrhœa for years. I have known a case of that sort, where there was every reason to conclude there had been a large amount of fæces impacted in the rectum for years, and the patient all that time complained of trouble with the bowels, suffering from looseness much of the time. There was a large mass in the bowel, through the center of which mass was an opening through which the softened fæces passed. Now, in order to remove this fæcal mass, if there be such in the case before us, we should give cathartics in moderate quantity, and castor oil is the best. It should be given in rather small or moderate doses, repeated several times a day. This patient is taking an ounce of castor oil, repeated three times a day, in emulsion. He has been under this treatment about two days, and it will be continued until this question may be settled. Another thing might be done, use injections by means of a large flexible tube, filling the large intestine with liquid. I have not time to dwell upon this case any longer to-day.

A Plea for the Uvula.

BY DR. E. L. SHURLY.

MR. PRESIDENT:

BEFORE the days of laryngoscopy the exact function of the uvula was not made out, and it was regarded, especially by very many surgeons, as a sort of useless appendage—like the nipple in the male—to be clipped off upon the slightest provocation. This was especially the prevailing idea with the younger surgeons, a couple of decades since, who, in their ardor to apply the knife, did not hesitate at shortening such an ap-

pendage as the uvula when its dimensions failed to coincide with their ideal impression of faucial proportions.

And even now-a-days, in the light of more accurate knowledge consequent upon the use of the laryngoscope and other aids to the study of throat diseases, we are almost daily meeting with individuals whose uvulæ have undoubtedly been unnecessarily clipped. In fact, in almost every community there is at least one man whose hobby may be known by inspection of his patients' throats, to say nothing of the numerous quacks whose surgical capital is made by victimizing this inoffensive appendix to the soft palate. Therefore, I believe it will not be inopportune to hastily review the physiological function of the uvula, together with some of the conditions which may or may not require its abscission. The anatomical and physiological relationship between the soft palate and uvula is so intimate that for awhile we shall be obliged to consider the two together. The soft palate, then—*velum pendulum palati*—with its appendix, is designed as a valve with both an upward and backward, and a forward and downward motion, which, by approximation in the former action, to the posterior wall of the pharynx, completely shuts off the cavity of the mouth from the cavity of the naso-pharynx; and through its latter action as completely, by approximation to the base of the tongue, shuts off the cavity of the mouth proper from both the upper and lower pharynx. The first position is the one taken in the act of deglutition, while the second is the one taken in natural respiration; between these two typical positions, however, there are several intermediate ones, for the proper fulfillment of the complex acts of articulation, etc., and it is just here that the uvula comes into play as an important organ. The free margin of the soft palate—which is arched—is divided at the median line by the uvula into two smaller arches, which are just the right shape to fit the convexity of the tongue on the one hand, and the contour of the posterior and lateral wall of the pharynx on the other; if it were not so, a perfect adjustment of this free edge, either to the tongue or pharynx, would, obviously, be impossible. In addition, it is obvious that if the free palatine border did not receive some support, the passing air of inspiration and expiration would keep it in a state of vibra-

tion more or less, and this support comes mainly from the uvula, as has been shown by actual experiment. In vocalization, whether artistic or ordinary, the sound conveying air is emitted either through the mouth alone, the mouth and nasal passages jointly, or through the nasal passages alone; in the first instance, the soft palate is thrown back, with the uvula firmly resting upon the posterior wall of the pharynx; in the second, only the uvula is so adjusted, which allows of a semi-lunar space between the pharyngeal wall and the free edge of the soft palate; and in the third, the soft palate and uvula rest firmly upon the base of the tongue. Now, if the uvula were not there, with the *azygos uvulæ* muscles, the free edge of the soft palate could not be so firmly fixed, without at least an extraordinary amount of contraction of the levator and tensor palati muscles, at the same time antagonized by the palato-glossus and palato-pharyngeus. This is frequently proven in those subjects whose uvulæ have been shortened, by their pain on vocal effort; that is, the unpleasant sensations which they experience when called upon to shout or otherwise amplify their voice. Besides its great importance as an aid in the positing of the soft palate, as it were, for purposes of deglutition, vocalization, etc., it serves as a guide to the drainage of the nasal floor. If, after one has projected a spray into the anterior nares, he will watch for a few moments through the open mouth of the person, he will see the condensed fluid steadily coursing down the uvula, over the base of the tongue to the lingual and pyramidal sinuses, whence it passes to the œsophagus, or lower pharynx. There are, undoubtedly, other functions as yet unrecognized, belonging to this little appendix, but I think enough is now known concerning it to warrant more deliberation ere abscising it.

This organ sometimes becomes so long or hypertrophied as to require surgical interference. There are a few cases on record where it was long enough to be swallowed at each act of deglutition, and others where it was so elongated as to encroach very much on the epiglottis, or glottis; of course such cases are to be treated only with the knife. But in every case presenting the symptoms of hawking and hemming, even though the uvula does rest upon the tongue, it should not be abscised. For it will be seen—in eight

cases out of ten—that the whole palate is relaxed, and perhaps that this condition is secondary to follicular or other disease of the pharynx; in all cases where the whole free margin of the soft palate is seen to hang low, especially when patches of enlarged follicles or spots of thick epithelium are observed upon the pharynx or tonsils, or where the superficial veins of the mucous membrane are enlarged and tortuous, the uvula should be left alone until these conditions are treated; when it will generally be found unnecessary to abscise it.

In cases of effusion or œdema, the uvula should be only scarified or simply its very tip cut off.

We do sometimes meet with cases where the mucous membrane of the organ is very much relaxed, hanging down as a club-shaped, pellucid pendant, aggravating all the subjective symptoms very much. Here it is necessary to clip it, not the muscle, only the tip of relaxed membrane. The muscle should never be cut except for real organic change, such as hypertrophy or neoplasm. The idea that the uvula can not rest upon the base of the tongue, or touch the epiglottis without giving rise to all that train of symptoms known as hawking, tickling cough, etc., is, I believe, preposterous! For its muscles are capable under most circumstances of keeping it out of the way of all neighboring apparatus and textures. And if you will but look into the throat of many persons, not complaining of anything wrong there, you will be surprised to find how long their uvulæ are, and how much they touch the tongue, pharynx and sometimes even the epiglottis.

Surgical Clinic—Detroit Medical College.

SERVICE OF DR. T. A. M'GRAW.

GENTLEMEN :

THIS young man has suffered for more than a year from occlusion of the right nostril. This might arise from one of several causes: catarrhal swelling of the mucous membrane, foreign bodies in the nostril, syphilitic periostitis, gummy tumors, gelatinous and fibrous polyps, enlarged tonsils, cancer and sarcoma, might either of them cause symptoms of obstruction. Examining this case, we find the anterior part of the nostril to be free from all disease, the throat is apparently well, but carrying my finger

up behind the soft palate, I can feel a hard fibrous mass, adherent apparently to the body and pterygoid process of the sphenoid bone, and completely occupying the right posterior nares. My diagnosis is, therefore, fibrous polyp, and I have come prepared with electric cautery and other apparatus to remove it as completely and thoroughly as I may.

The operation is never devoid of danger. In all cases the hemorrhage is exceedingly profuse, and in many the attachments of the tumor are so wide that the surgeon has to exercise the greatest caution lest he injure some important vessel or organ. If you will refresh your memory of the anatomy of the part on this skull you will notice the injected internal carotid artery through the foramen lacerum medium. This is separated from the mucous membrane and muscles, it is true, by a fibro-cartilaginous septum, but you can imagine how easily that septum might be divided by a slipping chisel or by an electric cautery knife. Besides the internal carotid, you must remember the position of the Eustachian tubes, any severe injury of which will cause disturbance in the ear. Now that the patient is anesthetized, I will put a gag into his mouth for the better protection of my fingers. Examining more at my ease, I find that the attachment in this case is, by a narrow pedicle, to the palate bone and base of the pterygoid process. Forcing one finger through the nostril while the other is behind the palate, I learn that the tumor is of no great size. Still retaining my finger behind the palate as a guide to my forceps, I pass, as you see, this toothed forceps through the nostril and seize the polyp firmly. It is now twisted off without much difficulty, and is found to be about as large as the thumb. You see how freely the patient bleeds. The blood runs into a puddle on the floor and as he vomits, you will notice that he has swallowed as much as has flowed from the nostrils. I have prepared pledgets of cotton, soaked in liq. ferri subsulph., and then squeezed dry. Tying a thread around one of these I proceed to plug the nose. You will see that this requires no especial instrument. The mouth is held open by a gag; the wad of cotton is then pushed rapidly behind the palate and forced firmly into the posterior nares; a similar plug is pressed through from

in front and the bleeding ceases under the pressure and styptic influence. He wakes up from his sleep and complains bitterly of his ear. The forcible detachment of the polyp has doubtless done injury to the Eustachian tube. We will inject through the sound nostril large quantities of hot water, and give opiates freely, and I have little doubt that he will make a good recovery.

CASE II.—This boy has an enlarged tonsil, which his mother wishes removed. I used to grasp these tonsils and cut them off after Syme's method, with a knife. I prefer, however, a tonsillotome. If the little fellow will open his mouth I will look at the tonsil. You see how quickly it is removed, and the surprise of the boy is the best witness of the efficacy of the instrument. When there is but one tonsil to be removed, I usually do as I have done here. I insert the instrument and, before the patient is aware, the work is done. When two have to be removed at once, I usually give a little ether or chloroform, as it is difficult, otherwise, to get the tonsillotome, for a second time, into the mouth. You may not regard too lightly the after treatment in these apparently trivial operations, but should see especially that your patient is guarded against cold and exposure.

CASE III.—This is the man whom I had before you last Wednesday. You will remember his history: Several months ago he fell on his perineum on to the edge of a plank. He had previously had a deep stricture of the urethra, and he then suffered a rupture of the urethra, followed by extravasation of urine. His physician did not relieve him, as he should have done, by a free incision, and it was not until some time afterwards that he fell into the hands of Dr. McHench, of Brighton, who very properly opened the perineal abscesses freely and instructed the patient in passing sounds. As is often the case, however, new abscesses formed, and the patient, living at a distance from his medical adviser, did not follow his directions very carefully. On entering the hospital last week he was found to be extremely weak and suffering from inability to freely urinate. He could pass no urine through the urethra, and only a little painfully through the sinuses in the perineum. Last Wednesday, when I put him on the

table, I tried to pass Gouley's fine whalebone sound through the strictured urethra, but without success. The occlusion seemed complete. I then tried to pass them through the fistulæ into the bladder, but this also failed. There were now two methods left—one was to operate by Cock's method, that is by thrusting a knife through the perineum into the prostatic urethra, and thus gaining entrance to the bladder; the other was simpler and, as I think, better. Experience has taught me that in such cases as admit of no guide into the bladder, the surgeon, when he has failed to find the entrance into it, may, nevertheless, relieve his patient by cutting freely all bands of false tissue in the perineum which occupy the position of the urethra. The result of such an operation is, in my experience, to enable the patient to pass his water freely through the cut. If he now waits a week the cut will heal all around the urethra, leaving that free and pervious to the bladder. This I did in this case and with the desired result, and to-day you will see how easily we will find the bladder. He has been passing water freely through last week's incision. I now pass a sound to the end of the occluded urethra through the penis. Cutting now upon its end, it passes readily through, enters the urethra beyond and goes without the slightest difficulty into the bladder. I shall now tie in a catheter for a few days and then pass a sound daily until the wound is healed.

A Case of Abscess of the Abdominal Wall.

BY DR. C. G. JENNINGS.

INFLAMMATION and the formation of abscess in the abdominal wall is an accident of comparative frequency.

The difficulty often closely simulates deep seated mischief, and considerable obscurity may attend its development. The symptoms are generally of an acute character, pain and febrile excitement accompanying the disease. While the effused products are bound down by the firm fascial investments of the abdominal walls, the conventional signs of the formation of pus are absent, and the symptoms closely resemble localized peritonitis and inflammatory affections of the underlying organs. The diagnosis is often rendered more complicated by the fact that the deeper structures beneath are functionally deranged by the external disease; thus, jaundice may

come on with abscess of the right hypochondrium, constipation and distended bowels with inflammation around the colon.

The following case, chiefly on account of its location, presented characteristics which rendered its exact diagnosis somewhat difficult; it may, perhaps, be of interest to the society.

Mr. A. S., aged about 35 years, German, marble-cutter by trade, was taken suddenly ill in the latter part of last May with chills, fever, etc., and a very severe pain in the right hypochondriac region. He was seen by Dr. Shurly on the sixth day of his illness. A day or two later the doctor left the city, and gave the case into my care.

When I first saw the patient, May 26, I found him sitting up in bed suffering considerable pain, intensified by the slightest movement. His temperature was 103°; pulse, 100; short, thoracic respiration; no cough; tongue coated slightly; nausea, but no vomiting; bowels, regular. Physical exploration of the abdomen revealed a circumscribed tumor, dull on percussion in the right hypochondriac region over the situation of the gall bladder, continuous with and extending four inches below the lower margin of the liver. The area of percussion dullness was continuous with that of the liver, and extended into the right lower corner of the epigastric, and right upper corner of the umbilical regions. There was but slight bulging of the abdominal wall; no pitting or fluctuation. The whole region covering and surrounding the tumor was exquisitely tender.

Dr. Shurly had applied a blister over the tumor, and had prescribed quinine internally with anodynes as indicated to relieve pain. The quinine and anodynes were continued, hot poultices applied to side. There was no change in the patient's general condition for 3 days. The temperature ranged about 102°; gastric disturbance at times; bowels, regular. The tumor enlarged extending downward and inward toward the umbilicus. On the morning of May 30 the patient had a severe rigor; the temperature rose to 106°, accompanied by delirium. The next morning he had another hard chill, and I decided to aspirate the tumor. I called Dr. Johnson in consultation. We introduced the aspirator needle at a point two or three inches above and to the right of the umbilicus, and drew off about an ounce of thick pus having a strong fecal odor.

Considerable relief followed the operation; the chills did not recur; the temperature was lowered, and pain and tenderness greatly diminished. The hot poultices were reapplied, and the quinine continued.

On the third day after the aspiration, the tumor became more prominent at the point of puncture; an erysipelatous blush appeared and deep seated fluctuation could be elicited. The diagnosis of abscess of the abdominal wall having been confirmed by the aspiration, I made an incision into the tumor, carefully dissecting through the several layers of muscle and fascia, following down the wound made by the aspirator needle. The tissues down to the transversalis fascia were cut through, and about ten ounces of bad smelling pus was evacuated; large quantities of pus discharged for two or three days. The poultices were kept on, and the cavity daily washed out with a 2½% sol. of carbolic acid. The discharge soon ceased; the wound healed rapidly, and the patient was able to attend to his business in about two weeks.

There is nothing very unusual in this case; the only points of interest were those relating to its diagnosis. The chief difficulties with which an inflammatory tumor in this location might be confounded are abscesses of the liver or gall-bladder.

Abscess of the liver was excluded early in the course of the disease. The rarity of the trouble in this climate, the absence of gastrointestinal disturbance, jaundice and the peculiar reflex pain in the right shoulder, the normal character of the stools, the position and mode of development of the tumor, the great and superficial tenderness attending it, gave good ground for the exclusion.

Suppuration of the gall-bladder with occlusion of the cystic duct could not be so easily disposed of. The symptoms of the two diseases differ in no essential features, and for their distinction dependence has to be placed almost entirely on physical examination.

Frerichs, in his work on diseases of the liver, relates several cases of abscesses of the gall-bladder, and by way of comparison I will give the main points of one. The patient, a female, æt. 60 years, had always enjoyed good health prior to May 1, 1856, when she was seized with rigors, fever, acute pain in the right side, accompanied by loss of appetite, nausea and confined bowels. At

the margin of the liver, close to the border of the rectus abdominis muscle, could be felt a tense, smooth, pear-shaped tumor, which followed the movements of the liver, and was very tender on pressure. It extended two and one-half inches below the lower margin of the gland. The size of the liver and spleen was normal and there was no jaundice. The inflammatory symptoms subsided under anti-phlogistic treatment, and the patient was discharged in four weeks. No change, however, took place in the size of the tumor.

The similarity of the course and symptoms of the two cases will be seen. The only distinctive point is in the character of the tumor, which, in the latter case, was tense, smooth, distinctly within the cavity of the abdomen and partook of the movements of the liver.

Another point in my case to which my attention was called by Dr. Johnson was that the tumor enlarged toward the median line, and its most prominent part was always at its lower margin. At the time of aspiration also we were able to detect intestinal resonance on deep percussion. Aspiration settled all our doubts on the subject, the character of the fluid showing the location of the trouble.

In the earliest period of its development it is almost impossible to determine with certainty the character of an abdominal abscess. Its recognition at the earliest possible moment has, I think, an important bearing on its treatment. An early incision would, without doubt, cut short the course of the disease, and certainly avert the danger of intestinal and peritoneal perforation.

A Clinical Lecture on Gynecology.

BY J. HENRY CARSTENS, M. D.

Assistant Professor of Clinical Gynecology, at Detroit Medical College.

(Reported by T. O. Armfield.)

GENTLEMEN:

HERE is a patient, Mrs. G., 31 years of age, been married nine years, has had three children and two miscarriages. As I pull apart the labia cunni, you will see a slight rupture of the perineum, with a small rectocele. Each of you will now make a digital examination, and you will find a prolapsus uteri, which is caused by the rectocele pulling the uterus down and leaving it dependent on its ligaments for entire support. This causes severe pain in the back. Now

the speculum is introduced, you can see a congested cervix, of a bluish color, probably caused by a hindrance to the return of circulation. Also, a granular spot immediately around the os. And you see as you introduce the uterine probe there is resistance at the internal os. But force it through gently, and you find extreme sensitiveness, which is due to endometritis, which has probably existed ever since her last miscarriage. I will now dilate the os with Nott's dilators, and apply Lugol's sol. of iodine to the whole mucous membrane, thus relieve the inflammation, and at some future time we shall operate on the ruptured perineum, and, I think, cure her of her troubles.

This is Mrs. S., aged 30. Has had one miscarriage and six children; the youngest is fifteen months old. She has not menstruated since it was born; has coronal headache, coated tongue, bowels constipated and a slight leucorrhœal discharge. She has had cervical endometritis, and on examination you see a few granulations around the os. Also, that peculiar violet color of the cervix, which I think characteristic of pregnancy. The abdomen is large, and we can feel a body, which is the enlarged womb. We shall give this woman a little tonic for the present, as she is undoubtedly pregnant.

Here is Mrs. M., aged 40; has had two children; is anæmic and generally debilitated. Has cervical endometritis, to which we shall apply co. tr. of iodine, and prescribe nutritious diet and tonics.

Mrs. G., aged 23; is sterile, menstruates often and profusely. Has frontal and coronal headache, and profuse leucorrhœa. Now, one of you may introduce the uterine probe, and you will find the uterus retroverted and bound down by adhesions. This was caused by jumping from a fence. We shall use the iodine sol. here, expecting to get absorption of the adhesive bands, and then we shall be able to replace the organ. Javanosky claims to have treated such cases successfully in this way.

Here is Mrs. S., aged 27; has had three children; the youngest is two years old. She complains of severe pain in the side, dizzy headache and very painful menstruations. I have removed a large number of fungosities with the curette, by first dilating the os. After each operation, I applied tannic acid, to prevent hemorrhage. If you will now ex-

amine, you will find ante-version of the uterus, which I can replace, but find it extremely difficult to retain in the normal position. It may require a pessary, but we shall see the patient again.

Mrs. H., aged 34, complains of coronal headache, backache, bearing down pains and leucorrhœa. She says she is always sleepy. When you make your examination, you will find the uterus retroverted and adhered. Stenosis of the external os. All caused by a miscarriage eleven years ago. We will do as in the other cases, use the dilators, apply Lugol's sol., and give sol. Fowleri internally for the malarial symptoms which are present.

This is Mrs. S., aged 30. Has five children; had a miscarriage four months ago; complains of frontal headache. On examination, you find a retroverted uterus, with endometritis of the cervix. This was caused by a severe labor three years ago, or the miscarriage. We will treat it with Lugol's sol.

Mrs. B., aged 37, married ten years ago, has had two children; at present has leucorrhœa, dysmenorrhœa, etc. With the aid of the speculum you can see erosions around the os, caused by a miscarriage six years ago, and which we shall treat by applying sulphate of copper sol., and you will find next time the exuberant granulations have been depressed. As she complains of rheumatic pains, I shall prescribe nitro-muriatic acid and tr. of colicum internally.

Reports of Societies.

Detroit Medical and Library Association.

May 19, 1880.

Dr. Lundy reported a case of diabetic cataract, as follows: Mrs. H—, from near Adrian, recently came to consult me in regard to the removal of cataract. On examination I found cataract in each eye and loss of useful vision. She counts fingers readily at one foot distant, with the right eye, while vision is not quite so good with the left. The field of vision is good in all directions, as tested by a candle in a dark room. More than eight years ago she became a sufferer from diabetes mellitus, and at one time passed twenty-four quarts of urine daily. During these eight years she has lost eighty pounds in weight. About four years ago vision began to fail, and for a year and-a-half she has

not been able to read. At present, the quantity of urine voided is about eight quarts per diem, and this has a specific gravity of 1.040. She still suffers from thirst, though not as much as formerly. She is extremely feeble, though her appetite is good. The pulse is weak, irregular and about eighty per minute. Accompanying the feeble heart action is a murmur, which seems to be due to anæmia. The retina is hyper sensitive, and the examination of the eyes, which occupied but a few minutes, caused much distress, accompanied by a pain in the cervical portion of the spine. I do not think there is retinitis, for the field of vision is good in all directions. The general tendency to inflammation in this class of patients, her extremely feeble condition, and the fact that her general condition is much worse than it was a few months ago, do not warrant operations for the extraction of the cataracts at present. In patients who are very feeble, and in whom there is some constitutional dyscrasia, there is danger of unfavorable results after cataract extraction, such as suppuration of the wound, necrosis of the cornea, etc. While diabetic cataract is not frequently met with, it is conceded that the disturbed nutrition of the lens, due to the constitutional disorder, causes cataract.

August, 1, 1880.

Dr. Walker exhibited a heart from a lady who had died from an overdose of morphine. The organ was enlarged, and there was complete calcification of the aortic valves.

Dr. Ross exhibited two pathological specimens, the ovaries and stomach undergoing cancerous degeneration, both removed from one patient.

Dr. Lundy reported a case of duboisia poisoning from the $\frac{1}{4}$ of a grain, five drops in the eye. The patient, a lady, became intoxicated and delirious and did not recover for two hours, suffering from loss of memory for some time afterwards.

Dr. Robertson reported the case of a lady whose ocular conjunctiva was considerably congested, adhesions about the iris and considerable intra-ocular pressure. Dropped in atropia. Said that she had had measles fifteen years ago, with a rash, sore throat, falling out of hair, etc. The case rapidly recovered under mercury. She did not recollect any eye trouble. Digitized by Google

Dr. Lundy said syphilitic iritis was frequently painless. The doctor also reported a case of membranous conjunctivitis in a child two weeks old, contracted from a sponge which had been used about the mother.

September 6, 1880.

Dr. Carstens exhibited two pathological specimens which he had removed from patients. One was a large pedunculated lipoma, taken from the upper and inner side of thigh. It had grown rapidly within the last six months and was a rare specimen, as such growths are usually sessile. The other pathological specimen was a matted hairy growth, removed from the back of a woman's head. It is supposed to be peculiar to certain parts of Germany, and many superstitions are connected with its removal. It is the result of neglect and filth.

Dr. Carrier presented a specimen and gave the following report, entitled: "Anomalies in Origin of Brachial, Subclavian, and Common Carotid Arteries." The subject was a month's old child. I wished to preserve its skeleton, and injected it for the purpose of having one of the students dissect and clean the bones for me.

Upon opening the thorax it was discovered that the first branch of the transverse portion of the arch of the aorta, viz., the innominate, was absent. This vessel arises from the commencement of the transverse portion of arch, dividing at upper border of right sterno-clavicular articulation into right subclavian and right common carotid. In the preparation shown the Association, a short trunk arises a little to the left of ordinary point of origin of the innominate, and divides into right and left common carotids, the left ascending almost perpendicularly to its position in the neck, while the right ascends obliquely from its origin to right sterno-clavicular articulation, after which it follows the usual course of right common carotid. The division on either side, into external and internal carotid, occurred in normal situation at upper border of thyroid cartilage.

The second trunk given off from arch was left subclavian at about its normal position. Its direction was that of the vertebral artery, however, and the latter was the larger of the two, so that it seemed as if the subclavian was a branch of the vertebral. The suprascapular, ordinarily a branch of the thyroid

axis, was given off in common with the internal mammary. The axillary on the left side pursued its normal course. The brachial divided on left side into radial and ulnar at about its middle third, the radial running parallel with the ulnar until it reached the elbow, when it crossed in front of the ulnar to its position in the forearm. The last branch given off was the right subclavian, which was given off from the upper end of descending portion of arch, passing obliquely across to the upper border of the first rib. The axillary of right side divides above the origin of the subscapular, giving off a radial branch which crosses arm at bend of elbow to radial side of the forearm. The circumflex and subscapular arteries were given off from the ulnar branch of the axillary. The lower extremities were not dissected.

September 20th, 1880.

This meeting was exclusively a business meeting.

October 4th, 1880.

Dr. Carstens exhibited two ovaries which he had removed from a patient. The case was one of hystero-epilepsy, and the doctor performed Battey's operation after the method of Hagar, making an abdominal section, and removing both ovaries and fallopian tubes. One ovary was adherent, and had to be torn away. The broad ligament was tied with cat-gut and the abdominal section with silver wire. The patient, twenty-four years of age, made a good recovery, and has had no fits since.

Each member was assessed one dollar, a majority of the members present paying their assessment at once.

The following gentlemen were unanimously elected for their respective offices, viz.:

| | |
|---------------------------------|------------------------|
| Dr. Theo. A. McGraw | President, |
| Dr. H. E. Smith | Vice-President, |
| Dr. David Inglis | Advisory Council, |
| Dr. A. F. Hoke | Treasurer, |
| Dr. Theo. F. Kerr | Publication Committee, |
| Dr. J. W. Robertson | Library Committee, |
| Dr. Edward Lauderdale | Librarian. |

Dr. Cleland, the retiring president, presented his check for twenty-five dollars which was accepted with thanks.

October 18th, 1880.

Dr. Jennings exhibited, under the microscope, a Payer's patch in the third week of typhoid fever, showing very nicely the villi and intestinal glands thickened and infiltrated with cells.

A short discussion followed concerning the difficulty of preparing such specimens for the microscope.

Dr. Warner recommended alcohol for hardening. Dr. Jennings said chromic acid was apt to over harden, if the specimen was not carefully watched.

Dr. Shurly read a paper entitled, "A Plea for the Uvula."

Dr. H. E. Smith thought it good to clip off the tip of the uvula in the beginning of an inflammatory attack, as such treatment was followed by relief.

Dr. Shurly said, the danger came afterwards in vocalization, that it never required excision unless organic change had occurred, that the elongation could be relieved by treating the pharynx, when the organ was œdematous; the doctor believed scarification was preferable to amputation.

Dr. Lauderdale did not know it was customary to cut the muscle, only the tip.

Dr. Hawes inquired concerning amputation of the tonsils.

Dr. Shurly said they were not cut off often enough. With reference to amputation of the uvula, if uvula is amputated, the azygos ridge does not appear which so alters the shape of the sounding box that it is impossible to employ the upper register.

Dr. Hoke reported three cases of diphtheria on hand, of a mild type, in a region where it had prevailed before.

Dr. Jamieson reported sore throat and tonsillitis.

November, 1, 1880.

Dr. Eugene Smith exhibited a patient and gave the following report of the case, viz.: S. Jasnowski consulted me, July 26, 1880. Had lost right eye and had cicatricial ectropion of the upper lid, the result of severe phlegmamous erysipelas. The skin of upper lid was entirely gone, the edge of lid being joined to edge of the brow. Abscesses under the angles of the inferior maxilla were still discharging. Purulent ophthalmia had caused sloughing of the cornea of the right eye. I advised ferruginous tonics internally with animal diet, and used the yellow oxide of mercury ointment as a dressing to the eye until such a time as he should be in condition for a blepharoplastic operation.

Tuesday, Oct. 19, assisted by Dr. Egge-man, I made the operation of blepharoplasty sine pedicle, or, perhaps more properly speak-

ing, *dermic grafting*, taking the skin in one large piece from the inner side of the arm, partially over the biceps. The different steps of the operation were as follows: Dissecting the palpebral border from the edge of the eye brow by a longitudinal incision. The lid was drawn down and the edge of it fastened by two sutures to the edge of the lower lid, a small portion of each border being revived with the intention of forming an artificial anchyloblepharon. This attempt failed, however, the lids not uniting. The bleeding was somewhat troublesome, and I found it necessary to twist two arterial branches. The wound of lid was one and-a-half inches long by one inch wide. After the oozing had ceased, I took a piece from the arm about two by one and-a-half inches in size, which consisted of skin and cellular tissue. Placed it on a large plate which I had had thoroughly warmed (the idea of placing it on a warm surface while preparing it for the lid, I derived from seeing De Wecker, in Paris, place a piece of conjunctiva on a piece of glass over a tumbler of hot water to keep it warm while getting ready to transplant it), and with a Beer's cataract knife I very thoroughly scraped and shaved off the cellular and subcutaneous tissue to the cutis vera, rather a difficult job. The graft was then placed on the lid, and being too large it was puckered in the centre and four sutures put in to hold it in place, one at either angle and two in palpebral border. None was placed in the outer edge. The parts were covered with a piece of gold beater's skin, a compress and a compress bandage, considerable pressure being made to keep the parts in situ and to prevent moving the lids. Twenty-four hours after operation, the dressing was removed, except the gold beater's skin, through which the flap could be seen apparently agglutinated to the lid, a fresh compress was applied and a bandage as before. Twenty-four hours later, two days after the operation, the dressings were again removed, including the gold beater's skin. There had been considerable oozing of bloody serum from the inner angle. The graft looked very white, but was attached throughout its entire extent, except a small portion near the inner angle. From this time forward the dressing was made every twenty-four hours. The third day the flap was found quite strongly attached, the wrinkles gone, considerably thickened and the epi-

thelium macerated. There was some pus and the border of the graft appeared in places of a bluish brown color. The fourth day most of the epithelial layer was softened and peeled off. The discharge was rather fetid and a portion of the edges was gangrenous, and I removed it with the scissors. The sutures came away with the sphacelated portion. After trimming off the dark part, the graft was seen to be of a faint rose color. The fifth day it was not dressed. The sixth day there was considerable accumulation of pus and quite fetid. The seventh day I trimmed the darkened edge, and the flap bled, when pricked, over its entire surface. It continued to discharge more or less till November 1. It seemed to be becoming covered with epithelium, and the patient opens the eye about one-half and closes it readily. The flap which had been quite thick is thinning down and the operation is a success. The grafted portion is a trifle over one-half its original size. The wound in the arm was drawn together with three sutures, after dissecting up the edges.

Some time ago I made the same operation, but it was a failure. The subject was a bad one, and I was not particular enough in preparing the graft, removing only cellular tissue. From my experience in this case I would urge the utmost care in shaving off the subcutaneous tissue, and even a thin layer of the cutis vera, for the more thoroughly insuring contact of dermic cells with the wound. With regard to its advantages over old methods, comment is unnecessary. One essential advantage is, that it does not require a second cosmetic lesion to cure an existing deformity; as, for instance, taking a flap from temple and forehead.

Dr. Shurly thought it one of the most successful operations of plastic surgery.

Dr. McGraw exhibited a dissection of a Colles' fracture, from the case of a man who had fallen twenty-six feet, striking on his hands and buttocks. The doctor also exhibited a ruptured gluteal artery. After the fall, there was a large swelling over the region of the left buttock. Diagnosed rupture of the gluteal artery, and operated. Hemorrhage was controlled by a stick in the rectum, and the artery was tied on each side of the bleeding point. The artery was in a state of calcareous degeneration, however, as were also the ribs, which could easily be snapped

under the fingers. In the case of the Colles' fracture, no crepitus could be felt, and there were no ruptured ligaments. Considerable deformity existed, and the ulna was not dislocated as Moore describes. The gluteal artery was tied with ease, contrasting with the difficulty of tying it as described by Bell. The ventricles of the brain were full of serum.

Dr. Walker exhibited some new sounds designed by him, with flexible shafts and metal bulbous tips. The idea had occurred to him from noticing the ease with which flexible bougies enter the bladder. The doctor also exhibited a new meatitome, somewhat resembling a gum lancet, by means of which strictures near the meatus could be cut, the sense of resistance enabling the doctor to tell how much to cut and when the stricture was cut through.

Dr. Warner read a paper on puerperal fever.

Dr. Walker said general practitioners were in the habit of saying that a surgeon should not practice obstetrics, but in Dr. Warner's paper she referred to a professor of anatomy who attended lying-in cases, without any bad results.

Dr. Webber said he had attended cases of confinement, going directly from demonstrations, with his hands saturated with animal fluids, without untoward results. Referring to the Woman's Hospital, he said when this epidemic occurred, the interne became demoralized, and a student of his took charge, revolutionizing the treatment. Where before the patients had died under treatment with small doses of quinine, he gave large doses of grains xxx, only losing one patient and having good results afterward.

Dr. Shurly said he was decidedly mixed as to the cause of puerperal fever. He was inclined to think with Dr. Warner, that puerperal fever was not always due to malarial infection. Once had a case where severe facial erysipelas just preceded the confinement. Did not expect recovery, but she did make a good recovery. The doctor followed the ordinary treatment of erysipelas, giving, however, larger doses of quinine. Afterwards there were a number of cases of puerperal fever and erysipelas in the same neighborhood, which induced him to think that specific poisons were related; *e. g.*, whooping-cough preceding measles, etc.

Dr. McGraw had attended cases of labor after cases of erysipelas, having, however, thoroughly disinfected his hands, with no bad results. Physicians should be careful, as the oils used at the time of labor were frequently rancid.

Dr. Shurly inquired if anything more than an abrasion could be caused by rancid oil.

Dr. McGraw thought the products of decomposition were dangerous, and that operations on fat people were the worst, decomposition setting up septicæmia.

Dr. Lundy thought the washing out of the uterus and vagina with disinfecting fluids very important.

Dr. Walker also spoke of their importance, lessening fever by several degrees after injection.

Dr. Shurly thought nature usually took care of such cases; thought the bad results in fat people due, perhaps, to mechanical obstruction to outflow of fluids.

Dr. Lundy reported several cases of diphtheria in young people, also herpetic trouble of cornea, remarkable for this time of year.

November 22d, 1880.

Dr. Eugene Smith exhibited a patient, who had had inversion of the lids and chronic keratitis as a consequence, and upon whom he had performed Von Bulow's operation for ectropion. The doctor also exhibited the patient in whose case he had performed dermic grafting, taking skin from arm and transplanting to make upper lid. The patient was progressing excellently well. Dr. Smith also reported the case of a man, who had perforated his cornea and iris with an awl while working at his seat in a shoe shop. The capsule of the lens was ruptured, but there was no cataract as there usually is in such cases. The treatment was expectant, and the man made a complete recovery.

Dr. Robertson exhibited a patient upon whom he had operated with the galvano-cautery, for chronic inflammation of the inferior turbinated bones and œdema of the septum. The doctor had only operated on one side and exhibited the patient to show the comparative appearances between the diseased tissue, and that which had been treated. Dr. Robertson also exhibited some galvano-cautery knives.

Dr. Jennings read a paper on a case of abdominal abscess. In reply to the query con-

cerning the fecal odor of the contents of the abscess, the doctor replied that it was present.

Dr. Carstens reported several cases of rheumatism and diphtheria.

Dr. Robertson reported a number of cases of continued fever in the neighborhood about the corner of Gratiot and Russell sts. There were a number of fatal cases.

Dr. Heaton remarked that diphtheria was prevailing in the northern part of the State. The doctor had had a number of cases of catarrhal croup, none fatal, however.

Dr. Sprague was elected to membership.

December 8th, 1880.

Dr. Mulheron's resignation accepted.

Dr. Hoke reported a case of dorsal displacement of the arm as follows:

I was called at 2 P. M. on the 2d inst. to the bedside of Mrs. R., a German woman, 28 years of age, in her third labor. I had delivered her eleven months ago, when she had an arm and shoulder presentation, by podalic version. I found she had been in labor twelve hours; had a pain about every five minutes and was in good spirits. On making a vaginal examination I found, completely filling and protruding from the vagina, a sac of membranes. As I could not easily reach the presenting part through this, I ruptured the membranes during the next pain. I found the os dilatable, but only on introducing two fingers and part of the hand was I able to reach the presenting part, which proved to be the vertex. As I found the pelvis roomy, I gave a half drachm dose of Squibb's solid extract ergot, which I again repeated at the end of an hour. The pains became strong and frequent, and yet the head made very slow progress in its descent. Three hours after my arrival the head seemed to have partially engaged at the brim; the pains were frequent and taking on the continuous or tonic character due to ergot. I became alarmed for the safety of the child and attempted to deliver with forceps. I applied the forceps without difficulty, but when I began to make traction I found that I was making no progress, and it began to dawn on my mind that there must be some other obstruction to delivery which I had not as yet discovered. I laid aside my forceps and proceeded to make a closer examination. I introduced my hand into the vagina and through the os uteri, along the posterior

part of the pelvis. I found nothing unusual until reaching up to the neck to see if perhaps the cord was not wrapped around it, I came in contact with a hand immediately back of the child's left ear, which, in following up, I could trace to the posterior part of neck, or rather, perhaps, the lower part of the occiput. This, I had no doubt, was the reason of the non-descent of the head, the right forearm and hand being thrown over the posterior part of the neck, forming a barrier by coming in contact with the brim of the pelvis. I at once proceeded to deliver by turning, and succeeded with but little difficulty in delivering her of a still-born child. I saw the woman to-day (four days after delivery) and found her doing well.

Dr. Warner inquired if it was not difficult to turn after the administration of ergot. The doctor replied that it was. The child was dead.

Dr. Lundy reported the case of a child who had had diphtheria. Some weeks after recovery it was discovered that the child could not read. There was paralysis of ciliary muscle. The child's defect in this respect was remedied by glasses. There was also paralysis of the soft palate on one side.

Dr. Hoke reported two cases of diphtheria.

Diphtheria was reported as prevailing on the Canadian side, from Windsor to Amherstburg, with considerable mortality among the children.

WILLARD CHANEY, M. D., Sec'y.

Meeting of the American Public Health Association in New Orleans, La., Dec. 7, 1880.

(Abstracted from the *New Orleans Democrat*, of December 8 and 9, 1880.)

FIRST DAY, DECEMBER 7, 1880.

Meeting called to order at 10 A. M. by Dr. John S. Billings, the President.

After reports by several committees were heard and accepted, the Secretary, Dr. Edward H. Jones, stated that speakers would be limited to ten minutes, and the President at discretion might reduce the limit to five minutes.

The Treasurer, Dr. J. Berrien Lindsley, reported that the cash on hand and received during the year was \$3,622.96, and the disbursements for the same time were \$2,917.56, leaving a balance on hand of \$705.40. Referred to an auditing committee consisting of Drs. Plunkett, Stewart and Walcott.

A paper on Abattoirs, by Dr. G. Devon, of New Orleans, was read by the author. The doctor entered into the history of abattoirs in general, and then described the condition of New Orleans before the Legislature in 1869 passed a law to better enforce the sanitation of the city.

Originally the stock-yards and slaughter-houses were above the city or within the city limits, and dead animals were often thrown into the Mississippi river in front of the stock-stables and floated down in front of the city, only to stop over the inlet-pipe of the Water Works and improve (?) the quality of the water furnished the city by the addition of the ferments of decay to the water, which, at best, is none too good; or to lodge under the wharves to the annoyance and detriment of the whole river front. Pursuant to an act of the Legislature, all this is done away and removed to a distance below the city, and abattoirs having a capacity for the slaughtering of 475 beeves, 200 calves, 300 sheep and 300 hogs per day have been constructed on the left bank of the river, thus improving the sanitary condition of the city by so much as such an amount of offal as would be derived from such a large number of animals slaughtered has been kept from the waters of the river above the city.

The next paper was on the same general subject: "How Abattoirs Improve the Sanitary Condition of Cities," by Bushrod W. James, M. D., of Philadelphia, Pa. Among the evils of the private system of slaughter-houses, as compared with the concentrated abattoir system, may be mentioned the necessity of driving cattle through the streets, carelessness in regard to the condition of the cattle slaughtered, the seeming impossibility of preserving private slaughter-houses clean and pure, the transportation of offal through the streets and the discharge of waste into the sewers—often into the gutters, the lack of thorough municipal inspection, the failure to use improved methods in killing and the increased cost making meat cost the consumer a higher price. These several objections are elaborated at length in the paper, and no doubt the author makes a good case in favor of the abattoir.

"Texas Cattle Fever" was the title of the next paper, by Jos. R. Smith, M. D., Surgeon, U. S. A. The doctor has tried to find

if there actually exists a disease among Texas cattle, both epidemic and contagious, that threatens to render Texas a dangerous locality from which to get supplies of beef. He has propounded a series of questions to prominent men—physicians and others—in different localities in the State, and, from replies received, comes to a certain conclusion, as follows:

To the question, "Does an epidemic exist among Texas cattle?" the universal answer was "No." But this answer seems to be modified by the statement that there is no disease among Texas cattle that are bred and grazed in the State, but imported cattle, soon after their arrival, are affected by a disease called Texas or Spanish fever, which is very fatal to them alone.

In discussing this paper, Dr. Harris, of New York, said that although the Texas cattle did not show the disease in themselves, yet their appearance in any section of the country, North, East or West, was followed by an outbreak of what was known as Texas cattle fever among native animals. Cattle crossing the trail of a drove of Texas beeves had contracted the disease.

The next paper was from the pen of Dr. J. G. Pinkham, of Lynn, Mass.: subject, "The Sanitary Association of Lynn, Mass."

The author detailed the efforts of this association to bring Lynn out of its swamp and improve the health of the city.

The next paper was the report of the committee on a plan for the prevention of the spread of venereal diseases, by Albert Gilhon, M. D., Medical Director United States Army, chairman:

Your committee, to whom was assigned the duty of suggesting some practicable plan for the prevention of the spread of venereal diseases, with especial reference to the protection of the innocent and helpless members of the community, beg to report:

That they have endeavored to consider the question without bias or prejudice, uninfluenced on the one hand by the misrepresentations of certain pseudo moralists, who have uncharitably denounced in advance their assumed intention to recommend the governmental license of prostitution, and on the other, by appeals from no less earnest, honest and righteous persons, who, with equal insistence, have urged the propriety and necessity for just such action.

Manifestly the just essential to the successful establishment and operation of any system of repression or prevention, is the recognition by the community of the magnitude of the danger it is incurring without it. Diphtheria and typhoid continued to commit their ravages with a sad submission to what was supposed to be the will of an inscrutable Providence, until the public learned that their homes were desolated through their own culpable carelessness. To-day, syphilis lurks in the most exemplary household, defiles the parents and blights the offspring, its very name being unknown to them. Until the public are taught that where personal rectitude is no safeguard, it is idle to expect that any system will be cordially endorsed; so long as venereal disease is popularly believed to be only the fruit of illicit sexual intercourse, its very consideration will be shunned. The public must, therefore, be enlightened, and your committee beg leave to remind this association that this task is eminently its duty as to the existence in their midst of a disease which is fraught with more evil to humanity than all other ills of the body combined. The other great scourges of mankind are occasional, like cholera, or limited by climatic bounds, like yellow-fever, or outwardly hideous and terrifying, like small-pox; but syphilis spreads its venom invisibly, insidiously, daily throughout all seasons; in every land and among all races and conditions of people.

Certain individuals—few of them physicians—have disputed the statement that syphilis is very common or so dangerous that it is beyond speedy and permanent cure. In the absence of exact numerical statistics, your committee believe it will be sufficient to refer to the experience of those medical practitioners who have had opportunities of judging, confident that they will, without exception, declare with Parent Duchatelet that "of all the contagious diseases to which the human species is liable, and which cause the greatest evils to society, there are none more serious, more dangerous or so much to be dreaded as syphilis; its ravages far surpassing those of all the plagues which at different times have terrified society;" with Prof. Gross and Dr. Marion Sims that "a greater scourge than yellow fever and cholera and small-pox combined is quietly

installed in our midst, sapping away the foundations of society, poisoning the sources of life, rendering existence miserable and deteriorating the whole human family;" with Sir Thomas Watson, that "it counts its victims not only in the ranks of the vicious and self-indulgent, but among virtuous women and innocent children by hundreds and thousands;" with Sir James Paget, that "it would be difficult to overstate the amount of damage that syphilis does to the population, children being born with diseases induced by it, which render them quite unfit for the work of life;" with other eminent medical men quoted by Dr. Sims, in his inaugural address as President of the American Medical Association at Philadelphia in 1876, Sir William Jenner, Prescott Hewitt, and Mr. Simon, chief medical officer of the privy council, who have borne testimony of their experience of its ravages among pure women and innocent children.

Statements such as these do not need to be backed by numerical data of questionable value. These can often be distorted to prove any point desired by selecting for comparison maximum and minimum years—or special returns from certain localities—as illustrated by the array of figures by which the opponents of the British contagious diseases act have sought to prove that the sanitary surveillance of public women has actually augmented the amount of venereal disease in countries where it is exacted.

At best but a small proportion of the venereal disease ever appears on vital returns. The true statistics of their frequency are the professional secrets of the physician whose aid is sought to relieve them, or whose eye recognizes them beneath the mask of other ailments. The most carefully prepared reports fail to exhibit the rheumatisms, the cachexiæ, the cutaneous affections, the defects of vision, the lesions of the spinal cord, the brain, the hair, which have had syphilis for their cause. Especially is this true of transmitted syphilis. Only a few days ago a distinguished American ophthalmologist declared to one of your committee that the majority of his infant patients were characterized by the oldish features and notched incisors and badly shaped head which mark the syphilitic child, and he boldly asserted that interstitial keratitis was always a conse-

quence of constitutional contamination. The greater proportion of venereal cases stalk about the streets in affected health and never appear in any returns. How many others find expression in suicide, in insanity, in conjugal infidelity and actions for divorce!

As far as figures can be evidence, the statistics carefully collated by Dr. Francis R. Sturgis, of New York, are worthy of consideration. A summary of the poor treated in 1873 at the various hospitals and dispensaries of the City of New York enabled him to estimate the total number of venereal and syphilitic poor patients, but this did not include those treated at their homes, often by themselves, at physicians' offices, by apothecaries and by quacks. Notwithstanding these omissions, of 280,536 poor persons receiving aid at public institutions, 12,341 suffered from venereal diseases, 5,045 of these being syphilitic; that is, 44 in every 1,000 were venereal cases, 18 per 1,000 syphilitic.

In Mr. Wagstaff's report of the amount and kind of venereal disease under treatment at certain charitable institutions in London in the year 1868, it is stated that sixty-nine in every thousand patients were venereal, thirty-five of these being syphilitic; and he estimates that among the 1,500,000 of poor population of the metropolis, who receive medical relief for disease at hospitals, dispensaries and at the hands of parochial medical officers, about one in fourteen is affected with venereal disease of some kind, this not including midwifery cases, nor the classes excluded in Dr. Sturgis' report.

During the same year 9,796 venereal patients were treated at the hospitals at Paris, and M. Lecour, prefect of police, estimating these as one-fifth of the total number of venereal patients treated at their homes by physicians and who seek relief at the hands of apothecaries and charlatans, gives a sum total of 48,980 cases, about one in forty of the entire population. "A formidable array and one probably much below the real amount."

The same estimate of the proportion of private to public cases of five to one, arrived at by Dr. Sturgis from wholly different date, would give New York, out of a much smaller population, 61,705 venereal patients in that year, 1873—nearly one in every fifteen of its men, women and children—a number only

dwarfed by comparison with London, where 100,000 poor alone are annually affected with syphilis.

Military and naval reports, while not free from the same objections of defective registration and classification, are, however, very much more exact, especially in the matter of enthetic diseases, there being less reluctance to apply for treatment and less dread of exposure on the part of the patient in a com-

munity composed wholly of men and no alternative but to consult the medical officer, who is required to include them in his returns. Your committee is indebted to the surgeon general of the navy, army and marine hospital service for the following official returns of the amount of venereal disease treated by medical officers in the naval and military services and mercantile marine of the United States during the last five years:

VENEREAL DISEASES IN THE UNITED STATES NAVY.

| YEAR. | Total Force | Total Sick from All Causes. | No. Cases Venereal Diseases. | No. Cases Syphilis. | Per 1,000 of Force. | | Per 1,000 of Sick. | | Per Cent. Syphilis to Venereal. |
|-----------|-------------|-----------------------------|------------------------------|---------------------|---------------------|-----------|--------------------|-----------|---------------------------------|
| | | | | | Venereal. | Syphilis. | Venereal. | Syphilis. | |
| 1875..... | 10,141 | 7,832 | 737 | 500 | 73 | 49 | 94 | 64 | 67.84 |
| 1876..... | 11,188 | 7,797 | 699 | 484 | 63 | 38 | 93 | 54 | 60.65 |
| 1877..... | 7,641 | 6,748 | 537 | 342 | 69 | 45 | 78 | 51 | 63.75 |
| 1878..... | 7,764 | 6,873 | 548 | 341 | 71 | 44 | 80 | 50 | 62.22 |
| 1879..... | 8,869 | 10,494 | 863 | 490 | 96 | 55 | 81 | 47 | 57.44 |
| 1880..... | | | | | | | | | |
| Mean..... | 9,110 | 7,949 | 672 | 418 | 74 | 45 | 87 | 53 | 62.90 |

VENEREAL DISEASES IN THE UNITED STATES ARMY.

| YEAR. | Total Force. | Total Sick from All Causes. | No. Cases Venereal Diseases. | No. Cases Syphilis. | Per 1,000 of Force. | | Per 1,000 of Sick. | | Per Cent. Syphilis to Venereal. |
|------------|---------------|-----------------------------|------------------------------|---------------------|---------------------|-----------|--------------------|-----------|---------------------------------|
| | | | | | Venereal | Syphilis. | Venereal. | Syphilis. | |
| 1875-76... | White | 21,718 | 32,523 | 2,362 | 1,147 | 104 | 53 | 69 | 50.70 |
| | Colored | 2,014 | 2,971 | 364 | 198 | 181 | 98 | 126 | 54.40 |
| | Total | 23,732 | 35,494 | 2,696 | 1,345 | 110 | 57 | 74 | 51.22 |
| 1876-77... | White | 23,833 | 34,688 | 2,463 | 1,233 | 105 | 55 | 71 | 53.09 |
| | Colored | 2,063 | 3,779 | 351 | 170 | 169 | 82 | 93 | 48.43 |
| | Total | 25,896 | 38,467 | 2,814 | 1,403 | 110 | 57 | 73 | 51.64 |
| 1877-78... | White | 20,872 | 26,898 | 1,840 | 954 | 88 | 46 | 69 | 51.84 |
| | Colored | 1,995 | 3,048 | 221 | 146 | 169 | 77 | 106 | 46.43 |
| | Total | 22,867 | 29,946 | 2,161 | 1,100 | 96 | 48 | 73 | 50.90 |
| 1878-79... | White | 21,847 | 22,814 | 1,902 | 885 | 87 | 41 | 58 | 46.53 |
| | Colored | 1,964 | 3,155 | 291 | 155 | 143 | 79 | 81 | 55.15 |
| | Total | 23,811 | 26,969 | 2,193 | 1,040 | 92 | 44 | 60 | 47.64 |
| 1879-80... | White | 22,087 | 33,645 | 1,957 | 960 | 89 | 43 | 58 | 49.05 |
| | Colored | 2,397 | 3,669 | 309 | 152 | 129 | 64 | 84 | 49.09 |
| | Total | 24,484 | 37,314 | 2,266 | 1,112 | 92 | 45 | 60 | 49.06 |
| Average | White | 21,969 | 32,013 | 2,065 | 1,046 | 95 | 48 | 65 | 50.17 |
| | Colored | 2,069 | 3,384 | 325 | 164 | 157 | 79 | 96 | 50. |
| | Total | 24,038 | 35,397 | 2,410 | 1,210 | 108 | 50 | 68 | 50. |

VENEREAL DISEASES IN MERCANTILE MARINE.

As shown by United States Marine Hospital Service Report.

| YEAR. | Total Sick. | No. Cases of Venereal Diseases. | No. of Cases of Syphilis. | Per 1,000 of Sick. | | Per Cent. Syphilis to Venereal. |
|--------------|-------------|---------------------------------|---------------------------|--------------------|-----------|---------------------------------|
| | | | | Venereal. | Syphilis. | |
| 1875-76..... | 10,975 | 2,696 | 2,110 | 246 | 192 | 78.20 |
| 1876-77..... | 10,914 | 2,061 | 1,627 | 189 | 149 | 78.94 |
| 1877-78..... | 11,334 | 2,163 | 1,825 | 190 | 161 | 84.41 |
| 1878-79..... | 11,449 | 2,362 | 1,818 | 206 | 159 | 76.93 |
| 1879-80..... | 24,890 | 6,284 | 4,492 | 237 | 180 | 70.36 |
| Average..... | 13,906 | 3,133 | 2,374 | 226 | 171 | 75.71 |

The last year of the Marine Hospital reports includes patients treated at the dispensaries and surgeons' offices out of hospitals. Neither these nor the naval and military returns include the large number of cases not registered and treated surreptitiously by apothecaries, nurses and hospital stewards. Officers generally avoid the necessary exposure, and their cases, consequently, seldom appear on the returns. Enough has been shown to establish this fact, that at least one

man in every thirteen in the naval service of the United States, last year one in ten; one in every nine in the army; of the negro troops one in six; one in every seven in the British army, and one in every four of the merchant sailors presenting themselves for treatment at marine hospitals and dispensaries, is affected with some form of venereal disease.

Your committee are able, by the courtesy of the surgeon general of the navy, Dr.

Wales, to supplement these alarming figures by the significant fact that of the boys who were applicants for enlistment as apprentices in the United States navy during the year 1879, twenty per thousand—one in every fifty—lads under seventeen years of age—were rejected on account of venereal diseases, twelve of these being syphilitics. Furthermore, of the young men examined at a certain institution which they had left two years before in good health, not one in five had escaped venereal diseases of some sort. There is no reason to believe that the proportion among other young men is less appalling. The family physician and the specialist for private diseases, advertised without disguise in the family newspaper, will never tell the tale of the tens of thousands who seek relief at their hands.

But, even were it possible to obtain accurate information of the number of cases of venereal disease contracted in cities, it would give no indication of the actual injury to the human race by these diseases. It would take no account of the myriads of the happily still-born, and the feeble offspring who bring their taint into the world with them, after having diseased their mothers during their inter-uterine existence; nor of those other myriads, contaminated by mere contact with the infected who mingle in every crowd. Every one instinctively shrinks from the touch of the sufferer with small-pox; but how few realize that the syphilitic is a leper also to be shunned? how few mothers are aware of the danger to themselves and their children from nurses and housemaids drawn from a population in which every fifteenth person is diseased? how few parents inspect the peril to their daughters from her accepted lover's kiss, who may be that one in every five young men among the better classes, who has a venereal disease, which there is one chance in two is syphilis?

These are not speculations. Gross has seen many cases communicated by kissing, and he tells of fifteen women, nine children and ten men diseased by a midwife who had a chancre on her finger, contracted in the exercise of her profession, and who had thus carried the disease from house to house.

Marion Sims says: "I have seen a cook and chambermaid with syphilitic ulcers on the fingers, and nurses infected by the children who had been born of syphilitic parents,

in turn affecting sucking babes born of healthy parents, and I have known a drunken vagabond husband to contract syphilis in a low brothel and communicate it to his wife, who unwittingly gave it to her four children, simply by using the same towel and wash-bowl;" and one of your committee can add the case of an estimable and venerable lady who lost her eyesight this very year from using a towel in her son's room, carelessly left by him upon the rack, and another of the wife of a clergyman, who this summer, sought relief at a Virginia spring for a horrible affection contracted in domestic contact with her servant.

The present surgeon-general of the navy, Dr. Wales, saw a number of cases of chancre of the lips among the smokers of one set of cheroots, of which the wrappers had been moistened by the saliva of a Manilla cigar-girl, and at Beyrout he learned that it was not unusual for syphilis to be contracted by using an arghilch that had been pressed by the lips of a diseased smoker. Who would venture to eat the fig from Smyrna if he had seen the top layer of the choicest box pressed flat by the saliva-wetted thumb of a packer, who there was one chance in ten was a syphilitic?

A member of your committee astounded an otherwise well-informed gentleman by explaining the risk he ran after he had been capsized in the river, in accepting the proffer of a flannel undershirt from a young man whose body was accidentally discovered to be spotted with a suspicious eruption.

A lady was equally alarmed when told by her husband, a physician, that she had invited to her table a young man, who, in the course of a physical examination that morning, had been found to have his mouth and tongue covered with mucous patches, and that her daughter was dancing in a public ball-room with another whose body was repulsive from syphilitic eczema.

A tired invalid at a fashionable hotel had just settled himself in bed, when the odor of tobacco on the pillow prompted an inspection, which revealed sheets which had not been changed, and which, being a medical man, he quickly deserted, conscious that they might have shrouded a syphilitic predecessor.

An editorial in the College and Clinical Record of Philadelphia, of October 15, states: It happened to the writer to be recently

called to see a man of most respectable surroundings, who bore an unmistakable venereal sore upon his hip, and subsequently manifested all the features of secondary syphilis. It was said that this had followed a trifling surgical operation upon the part affected for the removal of a slight deformity; the instrument or hands of the surgeon communicating the specific virus in the same manner, it will be remembered, that a New York dentist not long ago communicated syphilis by his forceps, and a well-known laryngologist inoculated a number of patients with pharyngeal chancre."

When the public know by how many thousand channels this disease may assail them, your committee have no doubt that they will demand protection at any cost, and they urge upon this association the promulgation of the fact, that so long as syphilitics are allowed to go unrestrained the spotless woman and the innocent child share the danger of contamination with the libertine and prostitute.

Let it be known that this fearful pest may be communicated—

By the blankets of the sleeping car, the sheets, towels and napkins of the steamship, hotel or restaurant;

By the hired bathing dresses of the seaside resort, and the costumes rented for the fancy ball;

By the chipped edges of a coffee cup, as seen at most hotels and eating houses, and their half-cleansed knives, forks and spoons;

By the public drinking vessel in the railway car or station, as well as the public urinal or closet;

By the barber's utensils, the brush and comb in the guest-chamber, the hatter's measure or the borrowed or sample hat.

By the surgeon's or dentist's instruments, or the vaccinator's lancet.

By the broom or dust-brush handled by a parlor maid, or by the spoon touched by the mouth of the cook or nurse.

By the toys sold to children in the streets by vendors with poisoned lips or fingers.

By playing-cards and visiting-cards, which have been used, and especially by car tickets and by the paper money which circulates in a city where 50,000 syphilitics are at large.

By the loaned pipe, or cane or glove.

By the grasp of a friend's hand or the kiss of an accepted lover; by the son to his

mother and sister; the husband to his wife and unborn child, and by the latter to its mother.

Were venereal disease restricted to those who seek illicit sexual gratification it might be well to let the guilty suffer and die; but when their sin is sure to leave upon them an ineradicable taint and to be transmitted to their helpless offspring; when, worse than all, the syphilitic leaves his stain upon whatever he touches to foul the chance passer—man, woman or child—as fearfully as if they had visited the vilest lupanar, it becomes the duty—the most important of all its duties—of this association to devise some plan for their protection.

Your committee have been charged with the suggestion of such a practicable plan. Of the numerous propositions submitted to them, that most zealously advocated provides for the registration and compulsory examination of prostitutes, and the seclusion of those diseased; but this alone your committee does not hesitate to admit to be inadequate.

It has, undeniably, accomplished a wonderful amount of good in continental cities, in the military towns of England, in insular garrisons like Malta, and recently and remarkably in Japan. On this point the universal testimony of naval and military officers cannot be impeached. Fournier, one of the ablest of living syphilographers, declared to Medical Director Cines that syphilis had been virtually stamped out of Paris, when the advent of the German army re-introduced it; but he expressed his confidence that it would again be stamped out as before.

Col. Fletcher, of the Surgeon-General's office of the United States Army, writes to your committee:

"In 1863, while I was on duty in Nashville, the question of periodical examinations of the prostitutes as a protection to the troops stationed at or passing through the city was referred to another medical officer and myself. We drew up regulations for the purpose, and for nearly three years the women were examined—at first every two weeks, but subsequently every ten days.

I believe this was the first occasion of any systematic inspection of prostitutes attempted in the United States. Its results may be briefly stated thus:

1. The amount of venereal disease was markedly lessened, so much so that its occurrence came to be looked upon (absurdly, of course) as an imputation on the care of the examining surgeon. I have more than once known a company officer complain that a man was off duty for disease caught of such a girl, at such a time, and demand that she be sent to the hospital.

2. The women, who were at first rebellious, became quite reconciled to the system. I have known them come to the hospital voluntarily, desiring to be examined for suspected disease.

3. It was self-supporting, the fees paying the expenses of the hospital.

To-day the Nashville prostitute advertises herself in big gilt letters over her front door, before a blazing light, more conspicuously by far than when she enrolled in a police register, while purblind virtue and false morality stalk by and leave no other guarantee to society than the poor creature's own good sense that her house shall not become a focus of disease as disastrous as small-pox or diphtheria.

In ten years, the Surgeon-General of the Navy is authority for stating, the amount of venereal disease on the Asiatic station has fallen from 425.8 to 112.1 per thousand, a difference of 313.7 per thousand, due to the examination of prostitutes practiced in Hong Kong and in Japan, and the seclusion of infected women in lock hospitals. The scandalous scenes which disgrace the chief thoroughfares of Liverpool and London and New York are no longer possible in cities like Paris and Lisbon and Hamburg, where public women are under police surveillance: nor is it true that clandestine prostitution attains such enormous proportions in places where the Gaukeiro or Yoshiwara confines the whore, as in Japan, or where the temples of Venus Meretrix, as in Marseilles, have their own secluded quarter, to be shunned by the virtuous, as it does in Philadelphia and Boston and Brooklyn, where the respectable woman is jostled in every street by unsuspected courtesans, and unfledged boys are lured to disease by young girls in the garb of decent poverty.

"Doubtless," says Diday, "a sensible progress has marked the beginning of this century. With the establishment of a better regulated surveillance, we have seen the co-

incidence of the diminution of the number of venereal affections, but the persistence of the scourge is an evidence of the insufficiency of these measures." "How is it, then," asks Fournier, "that syphilis is especially derived from inspected women? It is, on the one hand, because the relations with this class of women are more numerous; and, on the other, because the surveillance which is exercised over them is completely insufficient."

If the contagious diseases act of England has not accomplished all the good contemplated, it is because the act has not been stringent enough. If syphilis re-entered Paris after having been once stamped out, it was because every avenue for its approach was not carefully guarded.

The idle charge, endeavored to be substantiated by figures, that the inspection of public women has only induced a greater amount of disease, is not worth refuting; but the insufficiency of these inspections is evident—

Because, while discovering women who are diseased at the weekly or semi-weekly visit, it leaves them unprotected against the intermediate approaches of infected men and the unconscious contamination of their subsequent visitors.

Because minute abrasions, hidden deep in the vagina or among its rugæ, may escape detection.

Because a woman may undoubtedly be the vehicle of communicating disease from one man to others, without herself becoming infected.

Because women who are not avowed and registered prostitutes—shop girls, domestic servants, saloon attendants, ballet girls, choiristers, kept women and the like—are exempt from examination; and chiefly

Because it ignores the men, who are the original contaminators of the prostitute.

Furthermore, in this country at least, it is a fact that prostitutes, except those of the lowest class, have learned that it is to their own interest to keep well. There are few public houses which do not now have their regular medical attendants, who examine the inmates and treat them when diseased, and the first lesson taught the young harlot is to carefully inspect her male visitor, however gentlemanly his exterior. As the erring country girl brings forth the fruit of her illicit amour as promptly as if wedded, be-

cause ignorant of her sinning city sister's devices to avoid such a calamity, so the poor shop girl, unaware of the sanitary value of syringes and astringent lotions, is diseased by the well-dressed admirer who has turned her head, when the professional whore would have driven him from her room. The young libertine of this day can, consequently, visit brothels with little risk. The sentimental objection that their location is thereby published and their nefarious trade advertised, is of little weight beside the fact that the young man bent upon sinning might be saved from irretrievable ruin, who, with no less moral turpitude, consorts with the shop girl, whose favors are bought with cheap jewelry; or the housemaid, whose chamber is conveniently near his own, and who gratifies him without charge.

While believing that the police registration of brothels and their restriction to designated quarters under sanitary surveillance are in the interest of humanity and morality, and that this no more implies the recognition and countenance of the sin of immorality than the license of rum-shops and the taxation of whiskey stills presupposes the encouragement of intoxication,—believing that the toleration and connivance, through pretended ignorance of their existence, of bawdy-houses, bed-houses, cheap lodging-houses, spurious dressmakers' rooms and cigar shops, dentists' offices, and other notorious places of resort, and the freedom of exposure permitted in public places to the most abandoned and unmistakable whores, are the most monstrous blots upon the civilization of this century, and infinitely more reprehensible than their repression and sanitary and disciplinary control by the authorities,—your committee, nevertheless, consider this to be rather a question of public morals than of public health, and they, therefore, now only recommended as in their opinion the most effectual practical means of preventing venereal diseases, the enactment by the legislature of the several States of a law constituting it a criminal offence or misdemeanor to communicate, or to aid or abet in any way the communication of a contagious disease, such as small-pox or syphilis, and empowering and requiring health officials to establish such regulations as may be necessary for the prevention, discovery, treatment and suppression of such diseases.

Deterred by the fear of public accusation and its consequences, no diseased man would thereafter venture to cohabit with any woman, whether public harlot, clandestine strumpet or his own wife.

Satisfied that the law would punish the unscrupulous wretches who have hitherto so cruelly wronged them with impunity, no woman would care to evade its application to herself, and not only the poor panderer to man's lust would have a greater incentive to preserve her personal cleanliness, but the proprietress of the bawdy house would be equally responsible for and equally interested in the physical welfare of its inmates.

Inspections would be voluntarily solicited or cheerfully submitted to, and only those perversely negligent of sanitary observances and the degraded habitues of the lowest slums would become subjects of sanitary constraint, and with the professional burglar and black-leg be treated as forever an object of suspicion.

It might open the way to false accusations by abandoned women, but they who object to any semblance of protection of vice can hardly find fault with this additional impediment to sensual indulgence.

Under the operation of such a law it would become the duty of every physician to exact from his syphilitic patient that voluntary isolation or seclusion which may be necessary to prevent contamination, under penalty of punishment of the former for his neglect to advise, or of the latter for his refusal to conform to the advice. While it is manifestly impracticable to require a physician to confine his syphilitic patient in a pest-house, it is, nevertheless, his legitimate office to instruct him to shun such contact with his fellow-beings as may expose them to the risk of contamination. Military and naval medical officers already have, and the surgeons of the marine hospital service and those of emigrant and passenger ships ought to have, the right to ascertain the condition and the power to restrain the liberty of diseased men and others under their charge.

For the syphilitic who marries and contaminates an innocent woman and begets a diseased child, the law can scarcely frame an adequate punishment, while no code of ethics should permit a medical practitioner to screen his infamy.

The plan proposed by your committee im-

plies the appointment of sanitary officers in every hamlet, village, town and city of the country, subordinated to and controlled by county, municipal or State boards of health, and empowered to investigate and discover every preventable cause or form of disease, syphilis included. They further recommend the establishment of special or lock hospitals for the gratuitous treatment of all venereal affections, and in the absence of such hospitals, provision for their treatment without charge and without unnecessary exposure of their victims by health officials under whose cognizance they have come, since, as Dr. Beardsley has well stated, "the cost of treatment for venereal lesions has become so heavy, the prices so exorbitant, that thousands are deterred from consulting a physician through fear of being fleeced." Prof. Andrews quotes the case of a private disease doctor, one of a dozen in Chicago, whose receipts in a single month amounted to \$2,000. The special hospitals suggested would naturally supplement and not wholly supplant the private charities, dispensaries and special wards in general hospitals for the treatment of such as might be reluctant to enter the former, which, however, it is believed, might by thoroughness and care in treatment, not only attract a large proportion of unfortunate sufferers, but ultimately become the means of accomplishing the reformation of many whose misdoings had led them thither to seek relief.

The plan proposed by the committee of the American Medical Association at Louisville, Ky., in 1877, consisting of Drs. Gross, of Philadelphia, Marion Sims, of New York, N. S. Davis, of Chicago, John Morris, of Baltimore, and J. M. Toner, of Washington, though in the same direction, is less comprehensive than that of your committee. They reported: "That, in their judgment, there is no possibility of stamping out syphilis until all the nations of the world are protected by proper legislative measures. Great difficulties, unfortunately, surround the execution of laws having for their end the prevention of syphilis, and it is impracticable, at the present time, in view of the ignorance and prejudices given, to secure more than partial legislation looking to this purpose. We can, therefore, only hope to obtain the passage, at first, of enactments having in view the regulation of persons engaged in

the military and naval service of the government, and also those ordinarily subject to the control and supervision of the police and municipal authorities of cities and large towns, though in the end we are convinced that the extension of this control and supervision to the whole civil population will be the inevitable legislation of all countries." Your committee have contemplated this wider application of the law in the plan they have concluded to submit, and which it only remains for them to formulate in the following resolution:

Resolved, That the American Public Health Association earnestly recommends the municipal and State boards of health to urge upon the legislative bodies of this country the enactment of a law constituting it a criminal offense to knowingly communicate, directly or indirectly, or to be instrumental in communicating a contagious disease, such as small-pox, scarlet fever or the venereal diseases; and giving to the said boards of health and to the State and municipal health officials under their control, the same power in the prevention, detection, suppression and gratuitous treatment of venereal affections which they now possess in the cases of small-pox or other contagious diseases.

After some discussion, this resolution as amended was passed, the amendment being the omission of the words "municipal and State boards of health."

The regular business of the afternoon of the first day began by a paper on "The Storm-Water Question in Relation to Sewerage," by Col. George E. Waring, Jr., of Newport, R. I., of which the following are the closing paragraphs:

Fortunately, within the past few years the conditions of the problem have been radically changed. Formerly it was restricted by limitation in the matter of flushing. Small pipes could not safely be used for sewage proper to the exclusion of storm-water, because storm-water was needed to flush them out. This statement of the case is practically true, although not strictly true. Flushing by means of man-holes at the heads of the lines, into which water was to be poured, or where a tumbling tank might be set, or flushing by means of various manual operations, all made the use of small pipes possible, but left it very undesirable, inasmuch as it is always undesirable to rely on manual operations, or on the action of moving mechanism to keep sewers in condition. It is, therefore, quite proper to say that the possibilities

of the art of sewerage underwent a radical change on the invention of Rogers Field's annular siphon for emptying flush-tanks. This invention, which includes no moving parts, and the action of which is positive, makes it possible for us to accumulate the flow of a stream yielding not more than five gallons per hour until it shall have filled a tank or reservoir of any desired size, with the certainty that the continued flow of the same stream, after the tank shall have become full, will cause the whole accumulation to be discharged into the head of the sewer with such rapidity and force as to give it an effective flushing. It is now entirely safe to use pipes of as small size as the quantity of the sewage will permit, and recourse to storm-water flushing is no longer necessary.

Therefore, the question of what we are to do with storm-water presents itself in a new form. It seems to me very clear what we are not to do with it; that is, that, in my opinion, we certainly ought not to admit it to sewers which are in connection with the drains of houses. While the impurities of storm-water are by no means the chief factor in the production of sewer gas, the admission of these impurities to sewers is undoubtedly the most serious cause of its production. Fæcal matter carried completely through the sewers and discharged at its outlet within a few hours of its admission would do no especial harm; but fæcal matter added to the accumulations of mud and sand and sticks and rubbish strewn along the usual large brick sewer, in the absence of daylight and practically in the absence of ventilation, is so situated as to produce its very worst effect.

Therefore, as I have just observed, the question: What shall we do with storm-water? is the most pressing question in sewerage engineering at this time. Our practice has been almost universally to deliver it into deep sewers. This, I venture to say, is generally a mistake, and is almost always quite unnecessary. Proper provisions being made for the drainage of the sub-soil, our only care with regard to the rain fall is to provide means by which it shall escape without material inconvenience to traffic; that in its escape it shall wash the street gutters, and that the greater storms shall not harm public and private property. There is nothing in the nature of rain-water which makes its temporary presence on the surface of the

ground injurious to health. There is no reason why it may not be discharged over the surface of the streets and along the gutters, provided its volume is not so great as to interrupt or seriously interfere with traffic. Therefore, as the roadside gutters are in full view, and may easily be kept clean and in repair, there is no reason why the water which falls from the heavens may not flow through them for at least so far as they are able to keep it within bounds. Sooner or later, in the large cities, the water of copious rains will get beyond its bounds, and the flow of the gutters will spread out over the street or will rise onto the sidewalk. After the discharge of a certain amount of gutter has accumulated, there may be danger, during violent storms, of injury to the pavement, of the filling of cellars, or of serious interruption to travel. Then, but not till then, it will become necessary to carry the flow below the surface of the street and lead it safely to a safe point of outlet.

Now, there is a great difference between carrying storm-water underneath the surface of the ground and only at points where there is danger of some flooding, and the present practice of carrying the whole rainfall from the hill-tops as well as from the valleys first into foul and costly catch-basins and then into deep and costly sewers. In my judgment the latter course is, to use the mildest expression, unscientific and impractical; while the other fulfils the best requirements of common sense. If the art of town drainage had never been practised, and if the proposition were made for the first time to Mr. Chesebrough, or to Mr. Lane, or to Mr. Moore, or to Mr. Shedd, or to Mr. Philbrick—all skillful engineers—I am sure that it would never occur to one of them to get rid of it by channels from ten to twenty feet below the surface of the street and extending under all the streets of the city. It has been led there only by the conditions under which the work of sewerage has been developed. The occasion for its being taken there no longer exists, and an entire reformation in this part of the work is demanded.

It would be absurd for anyone at this early day to prescribe any substitute for the old practice as being the best, all that it is safe now to say is that storm-water should be kept on the surface of the streets as long as possible, and that when its accumulations

must necessarily be carried beneath the surface they should be carried only to such depth as is requisite to get them out of the way, and to prevent the filling of their channels with ice during slight flow in cold weather.

It will probably be a very long time before we arrive at the perfection of this method of delivery. We shall have annoyances of various sorts, and we shall doubtless encounter some serious difficulties in the matter of the crossing of streets. Until some substitute is devised for depressed gutters we shall receive a certain amount of unfavorable comment from those who enjoy a level and uninterrupted roadway. Let us remember, however, that all of these drawbacks relate solely to the personal convenience of the people, and that they involve no serious dangers. That we may not be appalled by the idea of creating such annoyance let us consider for a moment the other side of the question. Leaving now entirely aside all consideration of sewer gas, the cleansing of large sewers, etc., think for one moment of the effect of the rapid delivery through sewers of storm-water which, if flowing more slowly through the street gutters would do no material harm; think of the gorging of the large sewers of Providence, and the back flow of sewage matter through the kitchen sinks and basement water-closets of some low parts of that city; think of the vast trouble of a similar kind that has occurred in Brooklyn, where not only have the houses themselves been invaded by sewage matter during heavy storms, but where the manhole covers have been lifted and the torrent has poured over the surface of the streets and of the sidewalks; think of London, the theater of the proudest achievements of the drainage engineer, a city whose intercepting sewers are a model for the world, and all of whose ills were supposed to have been cured by Sir Joseph Bazalgette's achievements—but where, alas for the hopes of the engineer! he has been, if not hoist by his own petard, drowned in his own sewage.

Camden Town, Kentish Town and other parishes are crying aloud for relief from the stinking floods with which the new sewerage system is deluging their poor inhabitants. The storm-water system has been got rid of with a vengeance. It has been robbed from the surface of the streets, where it would

have done good sanitary service in flushing gutters, and has been delivered into sewers of great velocity to accumulate at the lower levels far beyond the capacity of the pumps to remove it, and has become the curse of the wide, low-lying areas, where but for the sewers it would at least have arrived so gradually as to have done infinitely less harm.

In closing, permit me to formulate my opinion on the subject by saying that the present manner of disposing of storm-water in sewered towns by removing it from the surface where it is needed, to the sewer where it creates a nuisance, is a "relic of barbarism," and—I beg that my respected friends of the engineering profession will forgive me—that its continuance indicates an over-riding of reason by tradition.

Prof. Brewer, of New Haven, read a paper on the action of muddy water on sewage.

Then followed a paper by Dr. James Crane, Health Commissioner of Brooklyn, N. Y., on "The Prevention of Certain Contagious Diseases by Local Boards of Health." Below we give portions of this paper of more general interest to our readers:

The order of the topics herein discussed follows that of the series of questions issued by the American Public Health Association, in a circular dated September 14, 1880, as follows:

A.—What are the best means of securing prompt and reliable information as to the presence and location of cases of such diseases?

B.—What are the best means of securing isolation of the first or of single cases of such diseases, and what are the chief duties in securing such isolation?

C.—Under what circumstances is it proper to declare such diseases epidemic in a place?

D.—Under what circumstances is it proper to recommend the closure of schools on account of the prevalence of such diseases?

E.—What precautions should be taken at the termination of each case as to—

a.—Care and disposal of the dead?

b.—Disinfection and cleansing of the room and house?

c.—Period of time at which it is safe to allow the convalescent to return to school or society?

A.—Information concerning the contagious diseases is best obtained from physicians. The laws, or ordinances, should require that the reports of such cases shall be made within a reasonable time—say twenty-four hours—with penalty for failure. If the community will pay a moderate fee, the reports will be more surely made. If postal-card blanks, directed to the health officer,

stating the information desired, like the accompanying form:

REPORT OF CONTAGIOUS DISEASE.

BROOKLYN,, 188..

To the Board of Health, Brooklyn:

Name of patient.....; age.....
 Residence.....; ward.....
 Disease.....
 Number of families in house.....
 On what floor.....
 Condition of premises

....., M. D.
 Residence,

TO PHYSICIANS.

Please make immediate report of each case.

All blanks in report must be filled.

Give both first and last name.

All children in the house named in this report are excluded from school attendance; therefore, be sure that the number of the house is correctly given.

Physicians will greatly aid the work of this office by attention to these details.

are furnished to physicians, with a request to the latter that they put their report in the nearest post-box, prompt and nearly complete returns would be made without any fee. I say "nearly complete," as there are physicians, otherwise reputable, who will not report their cases if they think they will not be discovered. The chief check or corrective against this rebellious tendency is found in the compulsory registration of causes of death, such as is secured in New York, Brooklyn and a few other cities under the burial permit system. In Brooklyn physicians are required to file their reports of death by contagious disease within twenty-four hours after death. If our postal arrangements might be so amended as to discriminate in favor of these communications affecting the life and health of the public, either by allowing the free passage of such as are marked "official" to the health offices, or by collecting unpaid postage on such at the time of delivery, the tax upon physicians would be lessened and the reporting of contagious diseases facilitated.

There are, however, some cases not attended by physicians. The law should, therefore, also require reports from parents, keepers of boarding-houses and from the principals of schools in cases where one of their pupils is attacked, or when children or teachers, though not themselves sick, attend such schools from houses where contagious diseases exist.

The success of this latter requirement must in great measure depend upon the good will of these persons, as without med-

ical testimony the nature of the disease cannot be proven. When cases are reported by lay persons they should of course be verified by a medical officer from the health office.

B.—Domestic isolation can rarely be depended upon, and for the following reasons:

1. The want of the proper apartments. The patient will frequently be one of a large family, having but two or three rooms and having no means to obtain more.

2. The mother naturally becomes the nurse of the sick child, and from the demands of housekeeping as well, must be constantly going to and from the sick room.

3. A popular impression prevails that all children must have, at some time in their lives, certain of these contagious "children's diseases," as they are sometimes called, and the parents may conclude that while one child is sick the others may as well be, and the latter are, therefore, allowed to be exposed. This condition of things can only be met by educating parents as to the dangers of such diseases and their preventable nature.

The difficulties attending domestic isolation above referred to (first and second reasons) must be overcome by the establishment of contagious-disease hospitals in every city, making them so attractive and placing them under such guardians that the people will have confidence in them, allowing mothers to go with their children, and their own physician to attend them. This must not be made a matter of compulsion, or it will fail; but by patient, continuous work such institutions will in time become popular and be sought rather than shunned, and then it may be obligatory to send thither all such cases as cannot be satisfactorily isolated at home.

C.—The official declaration of a disease as epidemic is a question of great importance. The consequence of such a step may become so serious that it should be taken only after a full and careful examination of the subject, and each incursion of the diseases we are here considering, of extraordinary severity, should be judged on its own history, character and surroundings.

The department of health of Brooklyn has not found it necessary, during recent years, to make such declaration.

D.—Whenever the school-house is also the residence of a family in which there is contagious disease, the school should be closed

If, in other cases, the patient is kept from school until neither he nor his clothes are in condition to spread the disease, and the other children living in the infected house are also kept away until such danger is past, there will rarely be any occasion for closing a school.

E.—At death the body should be at once disinfected, say by wrapping it in a sheet wet with a solution of sulphate of zinc and salt (as recommended by the National Board of Health) and placed in a tight coffin, metallic if possible, and at once closed and not again opened. The room and effects should be at once fumigated by burning sulphur for at least six hours, one pound to every 1,000 cubic feet. The funeral should take place within twenty-four hours, and no one attend except those who have been with the child during its illness. The fumigation should also be done in the same manner after recovery.

No definite period of time can be named when a child can with safety return to school; each case must be dealt with individually. In scarlet fever, so long as there is the least desquamation there is danger, and probably, after all visible desquamation has ceased, the process is still going on. It would, therefore, be well to consider the patient dangerous for a week, at least, after visible desquamation has ceased. In diphtheria the difficulties are greater. A week should elapse between recovery—that is, return to normal temperature, absence of sore throat, etc.—before the patient is considered safe. The same rules will apply to small-pox and measles as to scarlet fever.

An evening session of the first day of the meeting was devoted to speech making. Governor Wiltz, of Louisiana, delivered an address of welcome, and Mayor Patton, of New Orleans, informed the members present that the hospitalities of the city were extended to them.

Dr. J. P. Davison, Vice-President of the Louisiana State Medical Society, also gave a welcoming address on the part of the profession of the State.

The President, Dr. J. S. Billings, of Washington, D. C., also addressed the Association upon topics intimately connected with the objects of the Association.

The second day's proceedings began by routine business, after which Dr. Billings

read the report of the Advisory Committee on the Sanitary Legislation by Congress during the past year.

Dr. G. B. Thornton, of Memphis, Tenn., read a paper on the "Sanitation of Memphis," in which he gives a very confident statement that Memphis is now in such a good sanitary condition that an epidemic is next to impossible.

A paper on "Storm-water and House Drainage in Sewers," by Col. Moore, Sewer Commissioner, of St. Louis, Mo., was read by Dr. Bell. This paper is much in the same vein as that of Col. Waring, read on the previous day, and arrived at substantially the same conclusions.

In the afternoon, the first paper was by Col. J. M. Keating, of Memphis, Tenn. Subject, "The value of Sanitation from an Economic Standpoint."

A paper by Prof. John Gamgee, of Washington, D. C., on the "Sanitary Urgency of the Florida Ship Canal," was read by proxy.

"The Sanitation of Emigrant Ships" by T. J. Turner, M. D., U. S. N., was then read by Dr. Gihon.

Dr. D. C. Holliday, of New Orleans, then read a paper on "Dengue or Dandy Fever." The following comparison between Yellow Fever and Dengue may prove of interest to our readers:

| YELLOW FEVER. | DENGUE. |
|---|--|
| Single paroxysm. | Single paroxysm. |
| Temperature rising regularly. | Temperature remittent. |
| Pulse often becoming slower, while temperature rises. | Pulse, pressure relative to temperature. |
| Duration, 72 hours. | Duration, 3 to 5 days. |
| Tongue, white center, red edges, pointed, and conjunctivæ very much congested. | Tongue, broad, white, deeply indented by teeth, edges rarely very red. |
| Stomach irritable. | Nausea complained of. |
| Vomiting frequent. | Vomiting rare. |
| Violent pains, back and head, great jactitation, nepetude great, eruption rare. | Pains occurring early, much more severe, and general early appearance of eruption. |
| Ictericade here appearing early, symptoms of nervous exhaustion evident and alarming. | Conjunctivæ rarely very red; pericardial tenderness on pressure rarely well marked; nervous exhaustion rarely alarming; jaundice never observed. |
| Secretions all suffering; urine scanty, often albuminous; suppression frequent. | Secretions natural; urine often normal, sometimes slight traces of albumen. |
| Hemorrhages frequent and alarming, and black vomit an urgent symptom. | Hemorrhages slight, insignificant; black vomit rare. |
| Recovery exceptional. | Recovery the rule. |

Dr. J. G. Thomas, of Savannah, Ga., also read a history of Dengue.

This meeting of the American Public Health Association seems to have been very successful. The members who visited New Orleans enjoyed the hospitality of the citizens and of the city, and had a good time generally and, no doubt, returned to their homes fully impressed that they had had an enjoyable meeting.

CORRESPONDENCE.

EDITOR DETROIT LANCET:

SIR—I would like to call the attention of your readers again to the comparatively new but all powerful drug, "Jamaica Dogwood." I have been using it now for about one year. A sample vial was left with me by an agent. I had carried it in my vest pocket for some time, giving it occasionally in five and ten drop doses with little or no visible effect, when one night I was called hurriedly to a lady in her fifth month of pregnancy. When I reached the house I was sure that an abortion was inevitable, but knew I must try to prevent it; so while I was getting ready to do something else, I gave her 13 Jamaica dogwood. In less than 10 minutes she complained (?) of feeling easier; in 20 minutes she was sleeping soundly. Did not have another pain in uterus for four months.

Case 2d, that I will report, is as follows: Was called to Mrs. O. about 7 P. M. Friday. Found her suffering with agonizing pains in womb, swooning with each paroxysm. Had been in this condition for 24 hours. A doctor had given her some calomel to relieve (?) her. That morning I at once gave Jamaica dogwood, 1 teaspoonful. It was thrown back at once. Injected 30 drops hypodermically. She slept in less than half an hour; had no more pains.

Case 3d. A few nights since a lady who is now in seventh month of pregnancy (just at the period she miscarried last October) informed me that she was in labor, and suffering greatly. I placed my hand over the region of uterus, found it contracting regularly and with such force that I knew its contents would soon be expelled unless quieted very soon. Gave 1½ teaspoonsful Jamaica dogwood, which acted like a charm. Soon had the satisfaction of seeing patient sleeping quietly. I did nothing else in any of those cases.

I have reduced high grades of fever 2° and 3° in an hour, by giving it in 10 drop doses every 20 minutes.

Treat with good results neuralgia produced by colds, with sal. acid gr. x, Jamaica dogwood 3ss every three hours; produces profuse perspiration with almost immediate relief. Where I want a strictly nerve sedative, or something to produce perspiration, I desire nothing better than Jamaica dogwood.

I could give many more instances in which I have used it with splendid results, but desist.

DR. A. R. SHADDEN.

Fayetteville, Tenn., Nov. 14, 1890.

EDITOR DETROIT LANCET:

The review of Dr. Beverly Robinson's treatise on nasal catarrh in the November number of the *Lancet* does not, it appears to me, acknowledge the merit which the work really deserves. And I would, therefore, like to call the attention of your readers to a few of many points which the author has excelled in bringing out, much relating thereto being original.

His remarks upon prophylaxis of acute nasal catarrh, are very clear and concise, and his views regarding the ill effects of hot air furnaces, in the causation of the same, will be appreciated, I think by every city practitioner.

In the chapter on hypertrophy of the mucous membrane of turbinated bones, the anomalous symptoms given will not be found in any other book of the kind, I think, and yet they are almost daily observed by laryngologists.

The use of the nasal douche is discussed in a very fair and original manner, while all that relates to the treatment of nasal catarrh by insufflation of powders, etc, is more complete and valuable than can be found in any other book.

The same may be said also of the use of medicated bougies and their use, with a very clear account of methods of using nitrate of silver for cauterization of the mucous membrane of the nasal passages.

I would call attention to the author's excellent treatment of the subject of the relation of hypertrophied adenoid tissue at the vault of the pharynx to asthma—a thing overlooked in the majority of text books as well as by a large majority of the profession.

The implication of the ethmoid and frontal sinuses in chronic follicular disease of the naso-pharynx, which sometimes occurs, is very admirably set forth, and is therefore worthy of note, inasmuch as others have merely touched upon the point or passed it over altogether.

Much could reasonably be said also in praise of the whole chapter on hypertrophic and atrophic follicular disease of the naso-pharynx without giving the author the credit he justly deserves.

In conclusion, the work taken altogether is undoubtedly the best of the kind ever yet printed in the English language.

E. L. SHURLY, M. D.

Detroit, Dec. 15th, 1880.

The Detroit Lancet.

LEARTUS CONNOR, A. M., M. D., EDITOR.

Remarks Concerning the Medical History of 1880.

IT will be apparent to the most casual observer that the past year marked no epoch in medical history. In it was born no one conception that will render its memory imperishable and indispensably helpful to all medical practitioners during coming ages. Yet a ceaseless activity has prevailed in every department of medicine and surgery. Many have entered the profession; many have left it, so our ranks are still full, perhaps over full. Of the new recruits, some have come in by the door, some have climbed over the wall, and some have dug a passage under it. So numerous have been the irregular additions, that there has been and is a wide spread alarm lest these guerillas outnumber the legitimate members of the profession. Hence the call has been long and loud for a reformation in this matter. Colleges have been exhorted to prevent this influx of imperfectly educated practitioners. But owing to the ambition of the larger colleges to have the largest classes, and of their professors to draw the largest salaries, this appeal has met with but an imperfect response. True, the College Association has done considerable, but for the afore-mentioned reasons its efforts have not accomplished as much as could be desired. Still it was a great move to unitedly say that it would demand attendance upon three regular courses of lectures. Sceptics assert that even this is a fraud. Of this time alone can tell. However, it is a fact that several members do even now demand this, and the friends of progress hope that enough members of the association will follow their example so as to render the thing an accomplished fact before the time arrives for the final adoption of the new provision. Many colleges have in one way or another demanded more of their students. With most this has been confined to an in-

crease of fees; with a few a marked advancement is made in the requirements for graduation; with a still smaller number there has been a change of the methods of instruction, so that the students of these schools are taught according to the best methods, rather than taught by being talked at. The State Board of Health of Illinois has done some good work in regulating the practice of medicine, and its reputation is such that we may expect more and better work. In other States, laws to regulate the practice of medicine are mostly useless, or worse, positively harmful. Thus it will appear that while the entire educational battle has not been won, many important out-posts have been taken, and the prospect for the future is very encouraging.

Medical journals have continued to develop in every direction. The increase in number has mostly been confined to the cheaper sort. Indeed, it is evident that this is the era of cheap medical journals. In such there is "money" to the publisher, and the subscriber thinks that there is "money" to him. This too will have its day. Meantime the issue of the larger journals seems to have gone on with greater vigor than ever.

The special journals seem to thrive, as they appear regularly and in excellent taste. Among these we may mention *Archives of Ophthalmology*, *Archives of Otology*, *Archives of Dermatology*, *Archives of Clinical Medicine*, *Annals of the Medical and Surgical Society*, *American Journal of Otology*, *American Journal of Obstetrics*, *Journal of Nervous and Mental Diseases*, *The Alienist and Neurologist*, *Archives of Laryngology*. One or two journals have been started more or less limiting the scope of their contents. Of those mentioned by name all are of superior excellence and deserve the support of all workers in each particular domain. They show a degree of activity in these several branches very creditable to the American profession.

Medical societies have been, on the whole, more prosperous than ever. Of the scientific work done by the smaller societies we have often had occasion to speak; indeed, the results of such work occupy not an inconsiderable portion of the pages of the DETROIT LANCET. The social and legislative functions of the larger societies seems

to have been exercised with prudence. Of the discoveries in each branch of medical science and medical art we cannot do more than refer the reader to the pages of the *LANCET*. The vexed question as to the relation between diphtheria and croup still remains unanswered to the general satisfaction of all. Nor has the craze of Listerism passed entirely away. Syphilis, its nature, its prophylaxis, its cure, still await a rational and practical answer. The antagonism of drugs, the action of remedies, the treatment of morbid states, are all in a state of confusion. Still, a large number of able workers are endeavoring to bring order out of it.

Of the new books published, most were new editions of well-known text books. A few, as Gross on the Mammary Gland, exhibit a large amount of intelligent labor and are real additions to our positive knowledge. Most helpful is the volume of the Index Catalogue of the U. S. A. Medical Library. It is hoped, in the interests of medical scholarship, that each physician will use all means in his power to induce Congress to appropriate sufficient funds to publish at once the remaining volumes.

As usual, death has thinned our ranks. Hundreds have fallen by the way, faithful in the little field given them to cultivate, honored by the community to which they ministered, loved by such as came into the circle of their friends. The lives and deaths of such is a standing monument to the people of the real mission of the medical profession—as one of peace and good will to all men. But the mighty, too, have fallen. The list of fallen leaders is also a large one. Among these we recall the following: Freeman J. Bumstead, the great syphilographer; Soelberg Wells, the oculist; H. H. Toland, the great surgeon of California; J. Lockhart Clarke, the clinical neurologist; Sharpey, the English anatomist; Alfred Swayne Taylor, the eminent medical jurist; Hebra, the famous dermatologist; B. F. Lautenback, the experimental physiologist; Broca, Buhl, Bradley, Copeman, Boll, Seguin, Wagner, etc. For the year before us the outlook is encouraging all around in medical politics, in medical science, in medical practice, in medical education and in medical research, etc., etc.

Report of the Eastern Michigan Insane Asylum.

This institution was opened two years since. As its medical superintendent was an old asylum physician, trained at Kalamazoo, his report has a peculiar significance. The first feature that struck our attention was the separation of the duties of medical superintendent and business manager. To look after the medical interests of from three to four hundred patients every day is certainly a task calling for the highest professional and executive ability. Yet in many asylums the medical superintendent is called upon to look after the commissary department, the washing, the cleaning of patients and building, the management of repairs, the care of a large garden and farm, duties widely separated and calling for widely diversified powers. Under such circumstances, it is no wonder that insane asylums have furnished little of permanent value to the science or art of the special objects of their study. Further, the demands made upon the time and thought of the resident physicians, by visitors and by correspondence, leave to them little opportunity to carry out extended schemes of study or investigation of the cases before them. Hence, one can scarcely wonder that neurologists, fully posted in all that is known in their special branch, should speak contemptuously of the brain work in the interests of their science, done by asylum physicians. With all due respect to the able men, who from time to time have labored in our Michigan asylums, we can recall but one idea at all original which they have added to our knowledge of the nervous system. We allude to Dr. Van Dusen's description of neurasthenia. In this, however, the statement was made with so little force that Dr. Beard announces the discovery as his own.

Hitherto, Dr. Hurd and his assistants have been much employed in arranging the opening of the new institution, with the thousands of details incident thereto. Hence, it will not be fair to expect the report before us to add much to our existing knowledge. The medical staff of the institution is composed of three males and one female. The latter is said to have performed her duties in a satisfactory manner.

The whole number of patients treated during the two years is six hundred and sixty-nine, very evenly divided between the two sexes. The average number under daily

treatment was about four hundred. Of the entire number, fifty-four recovered, fifty-one died, seventy-nine were discharged improved. There remained under treatment four hundred and forty-three. As in all other State asylums, this reports itself over-crowded. It appears, also, that the confessedly incurable insane occupy a large proportion of the asylum. At the same time it seems that a very large number of acutely insane persons are kept in the various county houses throughout the State. The incurables occupy hospital room, while the curables are fast becoming incurable at the several dens called county houses. Is there no method by which the incurables may be removed to the extent needed to make room for the curables. Is it not possible to place the former in less expensive buildings, with less expensive attendants, medical or otherwise, and thus give adequate hospital facilities to such as need hospital and medical treatment. Certainly, something should be done to remedy the present state of things. It is not a pleasant view which shows the State providing, relatively, a palace for a few of its insane and nothing for the many. Although this asylum has been open but two years, it was long since more than full, and is to-day not available for any fresh cases of insanity.

In this report, it is evident that the State of Michigan gets from its physicians in the Pontiac Asylum more and better work than it pays for. The doctors are too much burdened with correspondence and a thousand details that should be performed by others. We hope to see the day when, freed from merely clerical duties and other non-medical matters, asylum physicians shall be constantly throwing new light upon the vexed questions of nervous diseases, and in that day our friends at the Pontiac Asylum will not be found in the rear.

One Element of Success in Public Medical Affairs.

Those conversant with medical matters have not failed to notice the great influence of the homœopaths in New York. Thus they have under their exclusive control a magnificent public hospital on Ward's Island, in East River, one of the best of Insane Asylums at Middletown, etc., etc. In Michigan the homœopaths have a medical school and a hospital supported by the public funds.

One element in this success is given by a leading journal of that sect, the *Homœopathic Times*, as follows: "In our own country, the lay believers in homœopathic practice have been constant and able allies. We cannot over-estimate the immense benefit that has come to our cause from legislatures influenced by homœopathic constituents, and we may safely assert, without fear of contradiction, that any measure looking to the discomfiture of homœopathic practitioners in the Empire State, would be met by the treatment it deserves in our legislative bodies. Under such a state of affairs, is it any wonder that we feel strongly secure, and thrive as a body of medical practitioners?" In view of all this, the editor of the aforementioned journal advises his colleagues in Great Britain to bring to their aid the *patrons of homœopathy*, assuring them that in this way they will succeed as well as the homœopaths of New York. All this is plain talk, but it is worthy of careful consideration by every lover of rational medicine. It clearly tells that the people are the rulers in this land, and that all legislation, all laws, must be enacted and supported by the people. Hence the education of the people in matters relating to the interests of the medical profession becomes a matter of vital importance. The homœopaths have at the present time succeeded in so educating them as to obtain such legislation as they desire in at least one State. Apparently, this education has been carried on by personal and private effort. Women, once converted, have exerted a decided and effective influence in converting others to the new faith, and in seeing that their husbands voted in the right way. Unquestionably this personal campaign is effective, and if the regulars desire to hold their own at the present time we see no better means than the constant and persistent use of personal influence at all times, and with all persons, and in all places. The influences of honest effective Boards of Health are also powerful aids in the work. Politicians must be brought into personal relations with the profession, or at least be made to understand its real nature and powers. The people who believe in regular medicine, so called, must be actively enlisted in its service. It is, doubtless, all right to feel that our way is the best way and must

win. But if we and our friends go to sleep in the faith that others will do the work, greivous defeat must be our lot, and the triumph of truth will be left to be won by a more wide-awake generation.

The Protection of Society from the Ravages of Syphillis.

An old theme is this, but one that will not be cast aside. Any plan that has any show of being able to diminish syphilis or its attendant horrors is sure to receive attention from every friend of the human race. Such a plan has been proposed by the *College and Clinic Record*. Briefly, it is as follows: "The plan involves the free treatment of all cases of venereal disease by medical officers, designated by the State; consultations, however, to be strictly confidential, except that prostitutes shall be immediately sent to lock hospitals, to remain until free from symptoms of disease. These special sanitary officers should be paid for their services from a fund derived not from the licensing of houses of prostitution, but from fines collected as follows: Upon the complaint of a man, supported by oath, that he was inoculated with venereal disease by a certain woman, the said woman shall be arrested and sent to a hospital for examination. If the accusation is found to be true, she shall pay a fine of not less than twenty-five dollars into the State treasury, and be detained in hospital until well. Moreover, the keeper of the house in which the disease was acquired shall be made to pay a fine of not less than one hundred dollars, or undergo three months imprisonment in the county jail; and furthermore, the owner of the house or property in which such inoculation occurred shall be fined not less than two hundred dollars, which shall be a lien upon the property until duly discharged according to law."

Concerning this plan, it strikes us as impracticable. So impracticable does it seem to us that it seems unnecessary to do more than state it. How shall a man know that he was inoculated by a certain woman in a certain house? How shall we know that the charge or even the oath of a man who visits a house of ill fame is reliable? Nor does the plan provide any punishment for the men who infect prostitutes. Why shall not these be fined equally with the women who infect men? Any law which commends

itself to the good sense of the masses must treat both the sexes with equal fairness. For ourselves, we do not know of any practicable measure, connected with civil law, that can reach the matter in any other than a most superficial sense.

Ohio Insane Asylums.

In his address before the last meeting of the Ohio State Medical Society, Dr. J. A. Murphy gave a very fair and able discussion of these institutions from the standpoint of the intelligent physician. We desire to reproduce some of his views. He says:

"The five asylums of the State of Ohio are now full, and some crowded. The entire number in all the asylums is quite three thousand. It is safe to say that at least a thousand are imprisoned in county infirmaries or cared for at their homes. Of the four thousand insane in this State the majority are hopelessly incurable. Expensive to the State, suffering from confinement and physical restraint (in many cases), their general health being impaired, a burden and a sorrow to the Superintendent, who is forced to take them up in his statistics and to make a favorable report of cures. Why not advise the State to purchase a large farm and erect on it substantial, but plain, buildings, and put three or four hundred at work under the direction of a prudent and experienced superintendent? I believe they would produce enough food for themselves, and at the same time perform much of the labor incident to a large establishment. Evidence is abundant to show that the general health would be better, that suicides would be rare and that flight would not be more frequent than from ordinary asylums. The superintendents cannot change the system. 'Cabin, cribbed and confined' by the pressure of political appointment and the mean and belittling influences of politicians and their henchmen, they must not be expected to move in the advance, even if they are convinced of the injustice to the taxpayers, the inhumanity to the patients and the utter want of modern science in the treatment."

In further remarks, Dr. Murphy shows that the trustees are appointed in such a manner that either they lack all qualifications for the office, or are so bound by the political party which has caused their appointment as to be incapable of inaugurat-

ing any reform, however much needed. All the subordinates of these trustees are more or less influenced by the vicious system under which the former are appointed.

The cure for all these evils, Dr Murphy thinks, is twofold: (1) Physicians should enter more into politics and exert their proper influence in legislatures. (2) The public must be educated to the fact that the asylums are only hospitals, and that it is no more just or humane to look first to the politics of trustees and medical men who govern and treat the patients, than it is to regard the politics of those whom it calls during its hour of pain and sickness.

Memoranda.

Since our notice of Wood's Ophthalmic Test Types, in the *DETROIT LANCET*, we have learned that the price on the same has been reduced to \$5, and that they may be obtained through any book-seller. At this price many will doubtless be encouraged to invest in them.

The *Architect* says that during the last financial year the expenditures of the urban sanitary authorities of England was \$93,318,500.

The *Medical Record* says that the new medical school at St. Paul, Minn., has not a single student. Doubtless all students from that region have patronized the "go as you please schools" in one of the great eastern cities.

We see it stated that the classes in the Michigan University Homœopathic Medical College and the Iowa University Homœopathic Medical College are larger this year than last.

The *Students' Journal*, of Guy's Hospital, London, says: "Priestliness, women and physic, in association, are a deadly trio. Separately and alone, they are of use, because they can be held in subjection."

How shall we obtain a more thorough system of medical education? The *Med. Surg. Reporter* answers: "The true solution rests in the general education of the masses. When they learn what science is and what the results of correct thinking are, they will require a more and more solid education in medical men, and this demand will, as usual, bring about the supply." Such is the doctrine we have maintained for years, and it delights us to see others advocating it.

The directory of the City of Boston, Mass., for 1880, contains the names of nearly nine hundred individuals called doctors. Of these, less than four hundred are regular.

In one of the streets of Boston, within one and one-half blocks, live about sixty physicians. A gregarious set there as elsewhere.

Dr. L. P. Yandell has resigned his position as one of the editors of the *Louisville Medical News*. Too bad, but we shall still hear from him through the original communications of that journal.

The *Southern Clinic*, for December, makes a very damaging expose of publication of the transactions of the Virginia State Medical Society. From this it appears that cliques are more powerful than they first seemed.

The *Popular Science Monthly*, for January, 1881, contains among other articles of interest to physicians, the following: Physical Education, by Dr. F. L. Oswald; Artificial Hypnotism, by Dr. R. Heidenhall; Examination of Thermometers at the Yale Observatory, by Dr. L. Waldo; Indigestion as a Cause of Nervous Depression, by T. L. Brunton; Distinctions between Real and apparent Death, by Dr. William Fraser.

The largest man in America is said to have been the late Lewis Cornelius, of Pike Co., Pa. His dimensions, on record in the Prothonotary's office, at Milford, Pa., are as follows: Born, 1794; height, six feet; circumference below waist, eight feet two inches; above waist, six feet two and one-half inches; above elbow, two feet two inches; below elbow, one foot nine inches; of wrist, one foot three inches; of thigh, four feet two inches; of calf of leg, two feet seven inches; of ankle, one foot, seven inches. Weight, seven hundred pounds. His wife weighed just one hundred pounds.—*Med. Surg. Reporter*.

Dr. John Binnie, of Wisconsin, says that in his region, cold winds from the north and northwest, with a clear sky, increase the prevalence of diphtheria.

The volume of the *Archives of Dermatology* just closed, is, if possible, better than any previous one. Those who desire to keep posted on this subject will not fail to avail themselves of the assistance thus afforded. Dr. Bulkley deserves great credit for the enterprise he has manifested in connection with its management.

The *Medical Record* is exercised because it is reported that in some parts of New York doctors charge for office visits but fifty cents. Further, it is not uncommon for patients to go from one doctor to another, until they have found the cheapest one. Well, it is scarcely likely that New York is singular in this respect. There always have been cheap doctors, and it is probable that such will always continue. Then, on the other hand, there are expensive doctors, who also will continue to exist so long as there is a popular demand for the same. The fee of a doctor is an important consideration to very many people. Nor is it clear that the larger fee obtains, always, better results.

D. G. Brinton, of Philadelphia, announces for publication in March, *Gubler's Therapeutics*. Gubler was the pupil of Trousseau, and his successor in the professorial chair. He took a long step in advance of his master, and, is said to have created a new epoch in medicine.

The Louisville *Medical Journal* of December 11, gives the Hot Springs of Arkansas quite a notice. Evidently, the editor is skeptical as to the extravagant claims made for this resort. In this we agree most cordially. No doubt that water is an excellent remedy internally or externally, or both, but plenty can be had elsewhere than at the above named springs.

M. Carpentier, of France, has propounded the theory that there is a color sense as distinct from that of light, as is the sense of touch from that of the sense of heat.

The *Medical Record* closes its notice of the last two works on nasal catarrh, those by Dr. Robinson and Dr. Rumbold, thus: "We rise from a somewhat careful perusal of these works, impressed with the belief that the sooner a line is drawn between medical works intended for the instruction of the profession and those apparently written for their use, but really intended for the laity, the better it will be for the interests of scientific medicine."

"A prophet is not without honor in his own country." Such will be the exclamation of him who reads the notice of Dr. Rumbold's work on catarrh, recently given by the *St. Louis Clinical Record*, and the *St. Louis Courier of Medicine*.

The London *Lancet* makes the following complimentary notice of American Derma-

tology: "There are lectureships and special clinics at almost all the first rate universities, hospitals, and dispensaries in which the dermatologists pursue their work. Thus at the present time, America can look with pride at the numerous band of workers who are contributing, year by year, papers of first-rate importance on dermatology, and advancing its studies in a thoroughly scientific spirit. We must especially congratulate our American brethren on the establishment of a first-class journal devoted to dermatology, on their complete union, and the harmony with which they work together, as seen in the foundation of their association and the meetings of the New York Dermatological Society, as also on the recognition of their position by the profession in America as earnest and thorough workers." In comparison with this the English are unfortunate.

The State of Maine has a law that provides that "no man shall practice medicine without having first practised dissection;" this is followed by another law which provides that "no bodies shall be dissected except those of executed criminals;" and the door is finally locked by another law which prohibits "capital punishment."

In the City of Brooklyn, N. Y., during thirteen weeks, there are reported 1,185 cases of diphtheria and 483 deaths. Scarlet fever also largely prevails. The matter has reached such importance that the Mayor has recommended the health authorities to summon witnesses, and take the testimony of persons who have made sanitary measures a study, in order that the causes of the disease may be ascertained and the remedies proposed.

Dr. Wilms, said to have been the greatest operating surgeon of Germany, and eminent in scientific and professional attainments, died recently of blood poisoning, contracted during an operation.

An example for professors of surgery: Francesco Rizzoli, professor of surgery at the University of Bologna, gave his vast wealth, estimated at nearly 6,000,000 francs, to the municipality of Bologna with the stipulation that it should be devoted to the completion and maintainance of the model orthopædic hospital on his estate, an institution on which he had during his life-time expended a sum of 2,000,000 francs.

Dr. Stranger, in the *Medical Record*, states that he removed a pint of watermelon seeds from the rectum of a patient. He had eaten the watermelons, seeds and all.

For more than ten years, says one of its medical officers, one of the largest Indian railways has appointed to out door work on its lines only such as could pass a general medical examination, and a special examination as regards their eye-sight. Color blindness seems to be very common among the natives and rare among the Europeans. How common is not stated.

On Friday, December 3, was buried Prof. Dumreicher, the founder of a school of surgery at Vienna. Cause of death was an old heart trouble, complicated by a recent nervous affection resulting from overwork. It is said that a year ago a patient received from the professor the following opinion: "My dear Herr H—: You and I have the same complaint. We are booked. It is but a matter of time with us; and as you insist on knowing the truth, not a very long time either!" Herr H— died on the same day as Dumreicher.

On the 28th of October, the Medical College of the Pacific graduated a class of seven. This small number of graduates was due to the operation of an honest carrying out of the three years' system of study, etc. This school deserves the admiration and endorsement of all who believe in the best class of medical training. Rigid demands for anything will tend to diminish medical classes. The largest schools are those with the most elastic regulations for conferring the degree of M. D. Notoriously, what the average student wants is, not medical knowledge, but a degree. The medical profession support this vicious principle of action by patronizing and extolling the schools with the largest classes.

Dr. Jacob, of England, has collected the reports of twenty-five deaths from chloroform occurring during the past year; how many more have occurred but were not reported none can tell. During the same period five deaths from other anæsthetics have been recorded, three of the latter were from ether.

Speaking of the New York medical law, the *Medical Record* says that it will become a dead letter upon the statute book, unless

the medical profession see that it is enforced. As it does not suppose individuals will do this, it recommends that county societies engage in the enterprise. All this but illustrates the position we have maintained in this matter, viz: "That no medical law will avail aught unless it executes itself. A law by the people, in the interests of the people, must be executed by the people."

The Pittsburgh *Medical Journal* is the name of a medical monthly. Each number contains 32 pages; terms, \$2.00 per annum. It is edited by Dr. Robert C. Gallagher. It has our best wishes for its success; still if we desired to inflict the greatest possible injury upon our worst enemy, we would exert our influence to induce him to start an honorable, high toned medical journal. The path of a cheap medical journal is strewn with flowers, plenty of money thrown in.

At Oakland, Cal., July, 1880, a bank teller named Schroeder, killed Dr. A. Lefevre, a prominent dentist of that place. On his return from a journey Mrs. Schroeder met her husband at the train and told him that on Saturday previous, while under the influence of chloroform in Dr. Lefevre's office, the dentist made a felonious assault upon her. Schroeder at once proceeded to the doctor's office and shot him. It is believed that Mrs. Schroeder's charge against the dentist is purely illusory. Lesson: always have some friend of the patient present when chloroform is administered.

The Boston physicians have adopted as a part of their future code the following: "A physician should not append his name, or permit it to be appended to certificates in laudation of speculative health resorts, health excursions, nutritive or dietetic preparations, proprietary formulæ, wines, mineral waters, beverages of real or supposed medicinal efficacy, or other medical or hygienic articles or surgical materials." It would greatly advance the interests of scientific medicine if all medical societies would adopt and enforce the above. The New York county medical society at a late meeting, passed a law similar to the above.

A writer in the *Med. and Surg. Reporter* tells the following: A good old dominie, while circulating among his sick parishoners, was wont to prescribe for each ill a mustard poultice. As his judgment was good in other matters, the people often consulted

him in respect to their bodily ailments. For each he recommended his poultice, even when he knew that the parish doctor had already given his prescription. The physician, on seeing this state of things, was sorely perplexed to find some way to remedy it. Fortunately, a crack in the church bell made it imperative to call a parish meeting to consider ways for mending it, as the hideous noise made by the bell distracted all the parish. The minister presided. One speaker recommended filling the fracture; another the exchanging of the old bell for a new one; a third proposed the recasting of the bell. The doctor now rose and astonished the people by reminding them of a sovereign remedy, so often proposed by the moderator of the meeting in severe cases of sickness, viz., the application of a mustard-seed poultice. He advised the congregation to try its efficacy on the cracked bell. From that day the dominie ceased to prescribe.

Dr. Henry D. Noyes, of New York, has recently been the defendant in a suit for malpractice, based on a new ground, viz., operating upon a patient without the expressed permission of himself or nearest friends. It was admitted that the operation was skillfully done, that the motives of the operator left nothing to be desired. But it was claimed that permission was given to operate on the right eye only. In spite of this, the operator found this eye unfavorable to an operation, and then he at once operated upon the left eye. Contrary to all precedent, the latter operation was followed by such inflammation as destroyed the eye completely. The jury disagreed, but it is safe to say Dr. Noyes will hereafter not be satisfied to change his operations without a positively expressed permission from the patient to be operated upon. The same rule will be a safe one for all surgeons to follow.

The *Medical Record* has been reading the quack advertisements in eleven of the religious journals. In these he finds fifty false assertions regarding the efficacy of quack remedies. He thinks that these are very unseemly. Scarcely an original idea, but, nevertheless, a good one that needs missionary work in order to make it useful. The place in which to attack the evil is in the religious journals themselves. Doctors, to a man, are agreed as to the aforementioned evil. The people, including the clergy, are utterly

ignorant in the matter. They need light. Who will give it to them?

The different methods of teaching therapeutics in the medical colleges of New York is given by a correspondent of the *Chicago Medical Journal*, thus: "One professor teaches with great eloquence and earnestness, that all remedies are divided into disease remedies and symptom remedies; the former being fore-ordained from all eternity for the treatment of chronic diseases, and the latter for acute. All the students go out from the institution with these and other curious therapeutical ideas packed away in their brains. For the professor creates great enthusiasm among his pupils, as indeed he deserves, since, in spite of his idiosyncrasies, he is an able man and a magnetic speaker. In another college the professor of this branch has practically given up the idea of classifying medicines. He simply divides them into mineral and vegetable bodies, and then makes subdivisions of the former on a chemical basis. While the first professor is transcendental, and is in a measure a teacher of specifics, the second professor is a materialist and a pessimist. In the former's lectures, one gets a spirit of hopefulness, and leaves with a vague impression that there is a remedy for everything; in the latter's lectures, one catches in an undertone the idea that nobody knows very much about therapeutics, anyway."

Dr. Fothergill (*Med. Times*, Philadelphia,) relates the experience of a medical practitioner in Somersetshire, Eng., as follows: "We have the same succession of heather, hills, moors and bogs, wooded glens and mountain torrents as in the scenes of 'Wuthering Heights.' Our people believe in ghosts. My predecessor has been seen, it is said, more than once since his death. They believe in witchcraft and charms. Calves die from spells cast by old women. Children take fits from evil eyes being thrown at them, etc. My predecessor was attending a family, on a lonely moor, with diphtheria. The day after he saw them a heavy snow-storm came on, and, on making the attempt to reach the house, he failed, owing to the deep snow drifts. He managed six miles, but the remaining three baffled him. A whole village set to work, and in five or six days cut a narrow path for him and his horse, but on his arrival he found four or five corpses in the

house. Again, last winter, my colleague was sent to a lonely house twelve miles off. He sent his assistant, who returned with the news that an operation for strangulated hernia was required. Next, my colleague and his assistant rode the twelve miles through the snow, reaching the house in the afternoon. As it was growing dark, they asked for candles to afford sufficient light for the operation, but a messenger had to walk six miles over the snowy moor to the nearest village before he could get light for the operation. The delay was so long that the patient died." Such are some of the experiences of country practitioners in some parts of Old England.

The St. Joseph *Medical and Surgical Reporter*, December, 1880, says: "We selected from Leonard's *Illustrated Medical Journal* for October, and inserted in the *Reporter* for November, what purported to be a biographical sketch of Prof. John T. Hodgen, of St. Louis, President of the American Medical Association. While we did not *just* like the appearance of the work from which we selected, we supposed, of course, that the statements made in the 'sketch' were authentic—that they had been obtained from some source worthy of credence. In this supposition we were, however, mistaken, as we have since learned that the *truths* contained in the article are the *exceptions*, and not the *rule*. For instance, Dr. Hodgen was *not* born in Pike county, Illinois; his early years were *not* spent at the carpenter's bench, nor have any of his days been so spent; he did not commence the study of medicine in 1845; he did *not* graduate at the St. Louis Medical College; the St. Louis Medical College was *never* known as the 'McDowell Medical College,' *nor* did he graduate in 1849." The editor of the St. Joseph medical journal is in a very disgusted state of mind at the unreliable character of his authority.

Editor's Book Table.

The Books Noticed in these Pages are for Sale by E. B. SMITH & CO., Detroit, Mich.

Thomas on Diseases of Women.*

This work needs no introduction to any of the civilized nations of the world. During the twelve years that have elapsed since the

*A PRACTICAL TREATISE ON THE DISEASES OF WOMEN. By T. Gaillard Thomas, M. D. Fifth edition, enlarged and thoroughly revised. 1880. Philadelphia: Henry C. Lea's Sons & Co. Pp. 806. Price, cloth, \$5; sheep, \$6; half Russia, \$6.50. For sale by John Willyoung, Detroit, Mich.

issue of the first edition, five successive editions have appeared. A copy of one of the editions will be found in the library of almost every progressive practitioner of medicine or surgery, as well as of every specialist in this branch. The preparation of a book that shall teach the masses in the profession what is really true in any given branch at any given time is a task requiring peculiar talents. These talents Dr. Thomas possesses in a special degree. Then, the key-note of the book before us, if not of gynæcology is surgery. In the solution of surgical problems our author is peculiarly happy. His successful devices for the relief of certain ailments by means of the knife, etc., are numerous and important. His enthusiasm and energy count for much in all that he does; they are clearly apparent in every sentence that he writes, adding greatly to the interest with which the book is read; he has the power of making others believe that gynæcology is a great thing. Dr. Thomas pervades every sentence of this volume; the reader feels that the author has fully digested every subject, and thus won the right to be heard. The edition before us adds to the strength of former volumes. With the wisdom of a master teacher he here gives the results that, in his judgment, are most trustworthy at the present time. In its own place it has no rival, because the author is the best teacher on this subject to the masses of the profession. To adapt this edition to the present state of the science and art of gynæcology called for extensive changes in a vast number of subjects. As far as we are able to judge, these changes have been made with the most painstaking accuracy. As illustrating the diversity of opinion that prevails on a vast number of subjects, we quote some of the views respecting the time at which the operation for ovariectomy should be performed: "Baker Brown, operator, operated quite early, as soon as the diagnosis was fully established, in order to avoid changes in the oyst and peritoneum. Peasley and Tyler Smith waited for some degree of impairment of health and emaciation, as does Keith; likewise, Wells operates when the patient can walk a mile without difficulty. Bryant does so when the tumor, by its size, inconveniences the patient and interferes with her domestic duties; Greenhalgh postpones the operation as long as justifiable, in order to secure changes

in the peritoneum which will render it less liable to traumatic peritonitis. It appears to me that the general rule should be this: if a small cyst be discovered, which is removable by the vagina, it should be removed as soon as possible, while one too large for this should be interfered with when it is evident that the patient is failing in strength and becoming emaciated, depressed and nervous. To this rule there are marked exceptions. In a patient of calm, philosophic mind, who does not chafe at the knowledge that a tumor exists, delay is often advisable; in the case of a tumor in a nervous, fretful, cowardly woman, who is rendered almost insane by such knowledge, it should be removed at a much earlier period."

His estimate of Battey's operation he gives as follows: (1) Battey's operation will, by reason of the fact that there is a class of cases, the great sufferings attached to which can be relieved only by the cessation of ovulation and menstruation, survive all opposition, and exist in the future as a resource of great value. (2) It is an operation attended by grave dangers and doubtful benefits. Nevertheless, the chances are greatly in favor of its affording relief. (3) It will ever prove more difficult and dangerous than ovariectomy, because pelvic peritonitis will be frequently found to exist in cases demanding it; because the abdominal walls instead of being stretched as in ovariectomy, are contracting and resisting; because the removal of the ovary often involves the tearing of the surrounding tissues; and because the abdominal peritoneum has not been prepared for interference by friction from a large tumor as before ovariectomy. (4) While the practice of the operation for checking menstruation where the vagina and uterus are absent is fully sustained, it is very doubtful whether benefit will result from it in cases of uterine fibroids. (5) A greater degree of surgical skill is necessary for the successful performance of this operation than for ovariectomy. Two hundred and sixty-six figures aid materially in elucidating the text. Lacerations of the cervix; the repair of damage to the perineum; the inflammation of the tissues surrounding the uterus; displacements of the uterus; tumors of the uterus; and ovarian diseases receive their full share of attention.

As hitherto this work will be the text book on diseases of women. We only wish that in

other branches of medicine as capable teachers could be found to write our text books. The elegant half Russia binding in which the publishers have presented it to the profession, will especially please those who can afford to indulge in handsome bindings.

Taylor's Manual of Medical Jurisprudence.*

Since 1844 this work has been the standard of both the medical and legal professions. Ten editions testify to the thoroughness with which the author kept it in accord with the progress of investigations and observations. Almost the last labors of the author were given to the completion of this edition. The author's revision was most thorough, and the American editor, Dr. Reese, has added such notes as he deemed of value to the American practitioner. The notes of former editors have been retained in so far as they expressed the present state of our knowledge. It is a matter of congratulation that we have such a complete and reliable guide in the branch of medical jurisprudence.

Hargis on the Ship Origin of Yellow Fever.†

The origin of yellow fever is a question over which there has been much discussion, especially in the Southern States, and by those interested in the spread of this disease. The exact solution is not apparent as yet. Long as the discussion has waged, it bids fair to continue still longer. This is scarcely to be wondered at when it is borne in mind that we know very little concerning the exact origin of any disease. From the history given in the work before us, it appears that Dr. Hargis was greatly stirred by the report of the yellow fever commission sent by the National Board of Health to Havana to study the history of yellow fever there. The correspondence between Dr. Chaille and himself in a Pensacola paper is given in full. This of itself is sufficient to repel any further effort to extract any real good from further disquisitions by the same

*A MANUAL OF MEDICAL JURISPRUDENCE. By Alfred Swaine Taylor, M. D., F. R. S. Eighth American, from the Tenth London Edition, Containing the Author's Latest Notes made expressly for this Edition; Edited with Additional Notes by John J. Reese, M. D. With Illustrations on Wood. 1880. Philadelphia: Henry C. Lea's Son & Co.. Pages, 933. Price: Cloth, \$5.50; Leather, \$6.50; Half Russia, \$7.00.

†YELLOW FEVER; Its Ship Origin and Prevention. By Robert B. S. Hargis, M. D. Philadelphia: D. G. Brinton. Cloth: pp. 76. Price, \$1.00.

pen. These are republications of articles that have appeared in the medical journals. They discuss the "Ship Origin of Yellow Fever;" "Practical Hints Relating to Yellow Fever;" "The Most Recent Utterances on Acclimatization and Endemicity;" "The Origin of the Poison of Yellow Fever," and some letters by Prof. John G. Gamgee, relating to the subject. The main idea of the work is to prove that the origin of yellow fever is in the ship-holds of the vessels that sail in the tropical Atlantic Ocean.

Fox's Illustrations of Cutaneous Syphilis.*

It will be remembered that in his illustrations of skin diseases, completed last summer, Dr. Fox omitted all those pertaining to syphilis. The series before us proposes to deal with cutaneous syphilis alone. It will be complete in forty-eight plates with descriptive text. The size of the plates and text is uniform with the former issue. As before, the plates are photographs taken from the living subjects and colored by hand. As to the general success of the method the profession is fully aware.

The first three numbers of the new series are before us. They illustrate the following subjects: "Syph. Erythematousum on the Breast and on the Back;" "Pigmentatio Post Syphiloderma;" "Leucoderma Post Syphiloderma;" "Syph. Papulosum Lenticulare;" "Syph. Papulosum Miliare;" "Syph. Papulosum Miliare;" "Syph. Papulosum Squamosum (breast and shoulder);" "Syph. Papulosum;" "Syph. Papulosum Circinatum;" "Syph. Papulosquamosum;" "Syph. Papulopustulosum;" "Syph. Pustulosum." We think the artist has been very successful in his faithful representation of nature. With these at his disposal we do not see how any one need make a mistake in the recognition of these signs of syphilis. The advantage of being able to recognize these signs will be apparent to every one on the slightest reflection. The letter-press accompanying the plates is a model of plain description. The essential features of this disease, with a recitation of the points still in doubt, are stated admirably.

*PHOTOGRAPHIC ILLUSTRATIONS OF CUTANEOUS SYPHILIS. By George Henry Fox, A. M., M. D. Complete in Twelve Numbers; Four Plates in Each. Price, \$2.00 per number. Plates are Colored by Hand. E. B. Treat, Publisher, 757 Broadway, N. Y.

Sozinskey on the Care and Culture of Children.*

The care and culture of children is a subject of greatest moment to both individuals and the state. The children of the present generation will be the rulers of the next—in fact they will constitute the next generation. Hence, every effort put forth with the aim to better fit the children to enter upon their heritage with the ability to possess it to better advantage than their fathers, is worthy of the most careful consideration. The work before us "proposes to give such information and advice as will serve to enable people to do, in a measure, their duty toward their offspring, from infancy to youth, the whole period during which they are under parental direction and control."

It treats first of the care of children in health and in sickness, including an account of each of the various diseases with which most of them are apt to be affected; and second, of the systematic culture of children, physically and mentally.

As will be seen, we approve of the scope of the work. Much of the substance is sound. Still we fear that its defects will largely neutralize any good it may do. The radical fault lies in the impression made upon the reader, that "the book was made to sell." Nowhere is it apparent that the author was in love with his subject to such a degree that others could not avoid seeing it. Nowhere is it clear that the author has fully digested the matters of which he speaks. The book seems a dead book, one that will have few attractions for the over anxious mother. The element of power is nowhere apparent. It is just such a work as an industrious, intelligent person could write, after a few week's study of authorities. It seems to us like giving a stone to parents asking bread, to offer this as a help to them in their perplexities. We took the book up in the hope that the author had done us all good service, but we lay it down in bitter disappointment. From it we see no hope for improvement in the lot of the little ones. To reach and engage the attention of the parents, respecting their children, requires the most intelligent thought set on fire by an overpowering desire to do good to the children. Goodish talk is of as

*THE CARE AND CULTURE OF CHILDREN. A Practical Treatise for the Use of Parents by Dr. Thomas S. Sozinskey, 1880, Philadelphia, H. C. Watts & Co., Cloth, pp 483.

little account here as in Sunday school books. Cool, calculating philosophy is utterly wasteful here.

A live book, from a live man or woman, on this subject, is greatly needed. But let us have no more make-shifts, no more books made purely of form without substance. A book to move parents to do their duty must be full of a human heart as well as a human head. The publisher has done his work with excellent taste.

Holland on Diet for the Sick.*

This is a sufficiently important subject to call forth the best efforts of any teacher. The substance of the work before us was delivered to the students of the author. Afterwards it was published in the *Louisville Medical News*. Thus, in one way or another it has secured quite a wide audience. It will bear a careful reading—is sound and interesting.

Smythe on Medical Heresies.†

The author has endeavored to furnish the profession a condensed history of the evolution of medicine, in so far as it relates to the rise, progress and fall of the various schools, sects, or systems from the earliest historical period down to the present time. The author has omitted all discussion of systems of philosophy and theology however much these have mingled with each other in the past ages. He has also avoided discussion of the materia medica of the ancients, especially as applied to the treatment of disease. Again, the principles of homœopathy are very fairly stated, so that members of the regular profession may readily acquire that knowledge of this school of physicians which they daily meet, and of whose real principles they know but little. The author has done his work well, and has made a book of positive value to the average practitioner who desires to be posted as to the real tenets of the various isms and dogmas that from time to time have held sway.

In the history of Gælen, one is shocked at his cowardice. First, he fled from his native

*DIET FOR THE SICK; Notes Medical and Culinary. By J. W. Holland, M. D., Louisville; John P. Morton & Co., paper, pp. 68. Price 25 cents.

†MEDICAL HERESIES HISTORICALLY CONSIDERED; A Series of Essays on the Origin of and Evolution of Sectarian Medicine; Embracing a Special Sketch and Review of Homœopathy, Past and Present. By Gonzalvo C. Smythe, A. M., M. D. Philadelphia: Presley Blakiston. 1880. Cloth, pp. 228. Price, \$1.25.

city because of a revolt. Because of the appearance of a plague, he fled from Rome to Greece. Again, while with the Roman emperors, during an expedition to the north, a pestilence broke out; he deserted his post and returned to Rome. To the modern physician such conduct seems incredible. The story of the transfer of medicine to Arabia is well told, and of much interest to every physician. A religious persecution of the Nestorians in 435 A. D., drove into Arabia those who most cultivated the art of medicine. Here, for a thousand years, medicine lived and grew. Schools of medicine were erected; clinical medicine was here first taught in a public hospital; students flocked to them from all parts of the world. In the school at Bagdad, the number of students in attendance at one time is said to have been over six thousand. As a whole, anatomy, physiology and surgery retrograded. Chemistry and materia medica considerably improved. The process of sugar making, the use of syrups in pharmacy, the invention of the process of distillation, with all their derivatives, owe their origin to Arabia.

Edwards on the Prophylaxis of Bright's Disease.*

This little book was prepared to aid those affected with Bright's disease, in so living as to obtain the greatest good from life. It tells how one may live reasonably and moderately. It shows how one affected with Bright's disease may live and enjoy himself for many years, if he will only use common prudence, common sense and experience. The story is, in the main, well told, and will be of infinite value to such as follow its counsels, whether they be sick or well.

*HOW A PERSON THREATENED OR AFFLICTED WITH BRIGHT'S DISEASE OUGHT TO LIVE. By Joseph F. Edwards, M. D. 1881. Philadelphia: Presley Blakiston. Cloth, pp. 87. Price, 50 & 75 cts.

Abstracts from Exchanges.

Prepared by Judson Bradley, M. D., Albert B. Lyons, M. D. and E. A. Chapoton, M. D.

Action of Remedies.

EFFECTS OF HYOSCIAMINE.—The medical report of the Eastern Michigan Asylum for 1880, gives an interesting account of the results obtained by the use of this preparation. It is shown to be a hypnotic of considerable

power, usually causing a more or less prolonged sleep, although in a small per centage of persons it acts as an intoxicant, and increases pre-existing excitement. Its effects usually disappear in from six to twenty-four hours, but a certain degree of mental and physical prostration may remain for several days. Hyosciamine, in several respects differs from hyosciamus. It acts more vigorously upon the muscular apparatus and cerebral centres, and rarely irritates the stomach or bowels; in some patients indeed, it improves the appetite and assimilative functions. It also paralyzes motility to a much greater extent, producing frequently a staggering gait, and sometimes an inability to stand. The sphygmograph demonstrates at first increased blood pressure, but later, as the hypnotic stage supervenes, a diminution of blood pressure, and if the dose has been large, irregular ventricular contractions. In some patients a tolerance of the drug is soon established, and increasing doses are required to produce constant results. The first few doses also seem to modify morbid action to a much greater degree than subsequent ones. Further, unless beneficial results are obtained soon, it is useless to continue the drug in excited persons. Its beneficial influence upon the insane condition is most marked.

Pathology.

THE CAUSES OF ALBUMINURIA IN PREGNANCY.—It is most probable that there are several factors, each tending to produce albuminuria, and that in any given case two or more of these may contribute to the result. These various elements of causation are well stated by Dr. A. L. Galabin (*Brit. Med. Jour.*, October 30, 1880): (1) Pressure of the pregnant uterus upon the renal veins increases the venous tension in the kidneys. This favors the mechanical transudation of albumen; and moreover, an organ suffering from venous congestion is more liable to become inflamed from slight causes of irritation, and recover less easily than when the circulation is normal. The fact that tumors of similar size do not so readily produce albuminuria, and that albuminuria is apt to occur in the earlier months of pregnancy shows this cause to be insufficient in itself. (2) Arterial tension throughout the body is increased during pregnancy and the heart becomes hypertrophied. This also would tend towards mechanical transudation of al-

bumen, and even, according to some authors, to actual effusions in the kidney, constituting interstitial nephritis. (3) The renal circulation is subject to great temporary changes, owing to the rhythmical contractions of the uterus, which occur at intervals throughout pregnancy and are intensified in labor. During a contraction of the uterus the flow of blood through it is greatly limited, and the tension in the renal arteries, which arise from the aorta not far from the uterine arteries, is abruptly raised. At the same time, a large quantity of venous blood is squeezed out of the uterus, and thus the arterial and venous tension in the vessels of the kidneys are at the moment elevated. This effect will be greatly enhanced during the powerful contractions of labor, and it is by this circumstance that we must chiefly explain the very large increase of the proportion of cases of albuminuria during labor over that in the ninth month of pregnancy. In some cases of this kind the albuminuria has been found to be present only in the first urine drawn by catheter after delivery, and not to recur again. (4) The kidney is closely connected with the nervous relations of the genital apparatus, hence it is probable that the development of the uterus in pregnancy tends to promote, by a reflex influence, active hyperæmia in the kidneys. And physiological active hyperæmia, while innocuous in a perfect organ, is apt to pass into or promote inflammation when any morbid condition or source of irritation is present, as is well illustrated by the physiological active fluxion of menstruation or of sexual emotion in the case of the uterus. It is conceivable even that morbid conditions of the pregnant uterus may lead to reflex irritation or congestion of the kidneys. (5) That the mechanical effect of pressure is an important element is proved by the greater frequency of albuminuria in primiparæ than multiparæ, and also in the younger than the older, both among primiparæ and multiparæ. This can only be explained by the greater rigidity of the abdominal walls in primiparæ and in younger women, and, consequently, greater pressure upon the abdominal contents. Pressure also operates disastrously by diminishing the caliber of the ureters and thus forcing the kidney cells to do their work at great disadvantage, and so rendering them more liable to functional disturbance or irritation. (6)

Probably the most important factor of all in causation is the increased amount of work thrown upon the kidneys during pregnancy.

Practical Medicine.

THE IODINE TREATMENT OF INTERMITTENT FEVER.—H. Gibbons, Sr., M. D., (*Pacific Med. and Surg. Jour.*, Sept., 1880), says: The claims of iodine as a remedy in intermittent fever have been overrated, but the testimony is too strong in its favor to be entirely repudiated. The dose he gives is ten or twelve drops three times a day, but patients will rarely stand such a dose more than two weeks. The proper place of iodine in the treatment of intermittent is not as a prompt anti-periodic, to prevent the immediate recurrence of the chill, but as an alterative, to be administered after the interruption of the paroxysms for the purpose of preventing their return. It is well known that the ague is apt to return in a week or some multiple of a week after its arrest by quinine or other anti-periodic. Consequently, it is well on every seventh day to take a good dose of the anti-periodic in addition to the iodine.

OPIUM AND BELLADONNA—THEIR ANTAGONISM.—Dr. Roberts Bartholow (Boston *Med. Jour.*) from a careful study of the above subject, draws the following conclusions: Opium and belladonna are antagonistic in their effect on the cerebrum; they are antagonistic in their effect on the pupil, though this is not constant. They are antagonistic in their action on the heart, but the effect of belladonna is more profound and prolonged. They are antagonistic in their action on the respiration; belladonna promotes the excretion of carbonic acid, while opium diminishes it, with the result of causing carbonic acid narcosis to be superadded to the primary narcotism. They are antagonistic in their action on the arterial tension; opium slows the heart and paralyzes the arterioles, while belladonna counteracts these effects. The action of belladonna preponderates, however, so that when both agents are given the rate of the pulse is greater than the mean. They are antagonistic in their effects on the kidneys—opium diminishing the excretion of urine and belladonna stimulating the action of these organs. They are not, however, antagonistic as regards the bladder, though they act differently upon it.

When the system is under the influence of opium the evacuation is interfered with on account of the action of the latter in dulling the mucous membrane and weakening the power of the muscular coat; while when it is under the influence of belladonna, the free flow of urine is prevented by the stimulating effect of the drug upon the sphincter. In therapeutics these agents can be used with great advantage in combination, since certain effects can thus be secured which are not attainable by the employment of either one singly.

THE CAUSES OF DIPHTHERIA.—As bearing upon the causes of diphtheria, we give the results reached by two English medical health officers. Both gentlemen work over large tracts of country where diphtheria is more or less prevalent. Dr. Kelly's experiences accord with the generally received opinions on this matter, while Dr. Fosbroke's startlingly differ from them. We quote from *Brit. Med. Jour.*, Nov. 6th, 1880: Since his appointment in 1873, Mr. Fosbroke has witnessed seven epidemics of diphtheria, in addition to many smaller outbreaks. From his observations he has reached the following conclusions respecting its etiology: (1) It is more liable to spread in rural than urban districts. (2) Geological position has little, if any, connection with the disease, but local influences of various descriptions have a most important relationship to it; for it is marvelous how diphtheria, when once fairly established, persistently clings to the immediate neighborhood. (3) The dampness of site does not bear that intimate relationship to the disease that some very competent observers are prone to believe. This view is exactly opposite that of almost all observers. (4) The dissemination of diphtheria is not dependent upon seasons, and excessive rainfall does not materially influence the disease.

Nervous Diseases.

INEBRIETY.—George M. Beard, M. D., (*Gaillard's Med. Journal*, October, 1880,) thus defines inebriety. Inebriety is a fundamental disease of the nervous system primarily of a functional character, the chief feature of which is an irresistible desire for certain stimulants or narcotics, even where not directly stimulated by their presence.

The substances chiefly desired by inebriates are alcoholic liquors, opium and chloral.

Among the accompanying symptoms of inebriety may be mentioned profound mental depression, usually periodic, insomnia, nervousness, in the ordinary sense of that much used word, tremors, mental irritability, coming and going oftentimes without any apparent cause, hallucinations, delusions, severe neurasthenia, moral decline, and in some cases, attacks of trance of the form described as alcoholic trance.

The points in the differential diagnosis between the *vice* of drunkenness and the *disease* of inebriety, are four:

First—Inebriety is irresistible to ordinary efforts of the will, and is oftentimes quite independent of any outside temptation; depending more upon the subjective state of the individual, while the habit of drunkenness depends more upon the objective conditions.

Secondly—Inebriety is liable to be periodic, intermittent, like attacks of malaria, neuralgia, hay fever and insanity; while the vice of drunkenness is constant, or modified only or chiefly by external conditions.

Thirdly—It is often very liable to be hereditary, and an inheritance of the nervous diathesis, subject to the laws of transmission like other diseases of the family to which it belongs.

Fourthly—Inebriety is sometimes distinguished by the suddenness, amounting almost to instantaneousness of the attacks; while the vice of drinking is always gradual. A person who has never been accustomed to drink, even moderately, may after an attack of heat prostration or during nervous exhaustion, or in the preliminary stage of hay-fever, or on exposure to sea air, or after a depressing disappointment, be almost instantly seized with inebriety, against which his own will is as powerless as the hand of an infant against Niagara.

INSANITY OF MASTURBATION.—Dr. Hurd (Report of Eastern Michigan Asylum,) says that in this form of insanity there is nervous debility, mental and physical depression, impaired sight and memory, loss of energy, self distrust, groundless fears and general muscular relaxation. Associated with it are loss of appetite, indigestion, constipation and marked impairment of the general health. The delusions are often of a religious character, and at first are those of distress and apprehension. Growing out of

this are marked suicidal impulses, which are carried into execution fitfully and without much purpose. The tendency toward dementia is strong, and one of the first evidences of this unfavorable change is the development of a silly vanity or extreme irritability. The mental symptoms seem to be developed by self-abuse, and the prognosis depends very largely upon the success of measures adopted to break up the vicious habit. If sufficient self-control remains to permit the patient to co-operate in moral measures for the repression of the habit, there is usually rapid improvement both mentally and physically; but if the habit is inveterate, the patient soon becomes demented and hopeless. The experience of this institution shows that the effect of this habit in the production of insanity is overestimated. Many insane people, whose strength of will is lost through disease, acquire the habit; but this is to be regarded as the result of insanity rather than its cause. Only ten per cent. of the patients of this institution have suffered from this form of disease.

Naso-Pharyngology.

NASO-PHARYNGEAL CATARRH—ITS SURGICAL TREATMENT.—Dr. Goodwillis (*N. Y. Med. Gazette*) calls attention to some pathological conditions requiring surgical treatment, which are sometimes the cause of naso-pharyngeal catarrh: (1) Exostoses—These prevent respiration, and by pressure cause sloughing and necrosis. They are less frequent on the turbinated bones than the vomer, in which situation they are associated with a deviated septum. Whenever the vomer takes a sharp deflection, there is often found a sharp deflection on the convex side just at the greatest part of the curve. The treatment of exostoses of the turbinated bones when large consists in drilling the enlargement at its base by means of the surgical engine, when it may be removed by the nasal forceps. The exostoses on the vomer, as also the small exostoses on the turbinated bones, may be removed by the revolving multiple knife, enclosed in a sheath to prevent any wounding of the tissues, and carried through the nostrils to the pharynx. (2) Deviations of the septum and dislocation of the lower end of the septum, with displacement of the nasal spine. In the treatment of deviated septum Dr. Good-

willis removes a section containing the bend by means of the excising nasal forceps, one blade of which contains a circular or oval knife, while the other is flat, against which the knife comes when it has cut a way through the septum. If the lower end of cartilaginous septum be dislocated, an incision is made over the protruding cartilage, which is denuded of its periosteum and amputated. (3) Hypertrophy of the erectile cavernous tissue on the turbinated bones. By constant irritation of the erectile tissue, caused by impurities in the respired air, or by continual blowing of the nose in chronic catarrh, a hyperplasia and consequent thickening is set up, which much interferes with, and sometimes entirely prevents, normal respiration. This hypertrophy may be removed by the galvano-cautery; if in the anterior nares, by the thermo-cautery. The vestibule of the nares is protected from the heat by a shield made of glass and asbestos, the lower part of the shield being flanged so as to be easily held between the fingers, while the top embraces the part to be cauterized. (4) Polypi. (5) Necrosis from struma or syphilis. (6) Chronic antrum disease. This is a frequent cause of naso-pharyngeal catarrh, the mischief beginning by a decomposition of dental pulp, opening into and setting up inflammation of the antrum. The treatment is to extract the molar and trephine through the alveolar process into the lower part of the antrum. (7) Chronic maxillary abscess of the second and third molars occasionally discharge into the pharynx and produce catarrhal conditions. The tooth should be extracted and the abscess kept open until it granulates from the bottom.

Ophthalmology.

OPTICO CILIARY NEUROTOMY.—Dr. H. Derby (*Boston Med. Jour.*, Oct. 21, 1880), gives the following notes of the discussion of the above subject at the Milan Medical Congress of September, 1880: "Dr. Meyer introduced the subject. He performed the operation by dividing and detaching all the conjunctiva in the immediate vicinity of the cornea, also cutting both oblique muscles. He used ordinary sutures in place of catgut, not finding the effect of the latter sufficiently durable. When symptoms of ophthalmia were actually present he always performed enucleation. Dr. Poncet had made examinations of dogs on whom neurotomy had been

performed. He had found complete regeneration of the ciliary nerves at the end of two months. Drawings were exhibited and the regeneration of the myeline demonstrated. At the end of two months he found, moreover, that regeneration of the optic nerve was taking place, myeline being formed. It being claimed by a member of the congress that the removal of a piece of the nerve had, in his experience, prevented the re-establishment of corneal sensitiveness, which had returned after simple division of the nerve. Dr. Linati reported a case in which he cut off a piece of the optic nerve two centimeters in length. In thirteen days corneal sensitiveness was again present. Dr. Liebrecht had seen all the symptoms return ten weeks after the operation of neurotomy. In one case he removed a piece of the nerve; four months later there was no disturbance. In the performance of the operation he had been much troubled by the occurrence of hemorrhage. Dr. Dorr reported a case where the cornea remained insensible for a year after the division of the optic nerve, and then began to regain its sensitiveness. The activity of the pupil returned also. In his opinion neurotomy would still remain applicable to a limited number of cases, and need not, therefore, be wholly abandoned. Enucleation, however, he invariably performed where sympathetic ophthalmia is to be feared. This statement was received with marked and general demonstrations of assent.

COLOR BLINDNESS IN DISEASES OF THE OPTIC NERVE.—Dr. E. Nettleship, (*Brit. Med. Journal*, Nov. 11th, 1880,) gives a summary of seventy-nine cases of diseases of the optic nerve. His observations related chiefly to three factors, color perception, acuteness of vision, and condition of the visual field. His conclusions are (1) color blindness of a high degree is always present when acuteness of sight is low, and the field of vision presents a high degree of sharply defined but irregular contraction. This group includes the common cases of progressive atrophy, often associated with locomotor ataxia, but also frequently occurring without spinal symptoms. The writer had never seen atrophy of the optic nerves in locomotor ataxia, without color blindness. (2) When the visual field shows an uniform contraction, moderate in degree, but not very

sharply defined, and perhaps only relative, though acuteness of sight may be very low, 1-20th, color perception is seldom much affected, and may be quite perfect. Such cases are rare. (3) If the alteration of the field take the form of a central defect, (central relative scotoma), its circumference being of full size, though acuteness of sight may be as low as 1-20th, or even 1-10th, color perception of large objects is but little, if at all, damaged; but partial or complete color blindness for small spots of red and green exists; and such patients are therefore likely to mistake colored signal lights. Nearly all of these cases of central amblyopia are caused by tobacco. (4) The visual field may show a high degree of sharply defined irregular contraction, but with perfect acuteness of vision. In such cases (a) there may not be marked color blindness; (b) there may not be the slightest defect for colors. The difference between the sub-groups (a) and (b) in regard to color perception is most striking. (5) The field of vision may be perfect in size and free from scotoma, with acuteness of vision as low as 1-10th and perfect color perception; or color blindness, sometimes of considerable degree may be present.

RAPID DETERMINATION OF THE DEGREE OF HYPERMETROPIA BY THE OPHTHALMOSCOPE.—Dr. P. Teale (*British Medical Journal*, November 13th, 1880,) gives a method of rapidly determining the degree of hypermetropia, that he has found very useful for over ten years. Of the two methods in common use, in one the hypermetropia is rendered "manifest," more or less, by suspending the power of accommodation by means of atropine, and the glass which rendered distant vision distinct is accepted as the measure of the hypermetropia; in the other, the surgeon, examining the "erect image" of the fundus by the ophthalmoscope, held close to the eye, estimated the degree of hypermetropia either from the power of the lens fixed behind the mirror, or from the degree of his own accommodation, consciously exerted, that would restore the hypermetropic fundus to the appearance of the normal eye. In Mr. Teale's method, the ophthalmoscope is held about fourteen inches from the eye, at the distance for observing the "inverted image," and the observer ascertainment the power of a lens, which, held close to the patient's eye, restores the hypermetropic fundus to the

appearance of an emmetropic eye. The advantages of this method are, that it avoids the use of atropine, and does not call for the paralysis of the observer's eye, or the suspension of his accommodation.

FOREIGN BODIES IN THE EYE—THEIR DETECTION BY THE MAGNETIC NEEDLE.—Dr. THOS. R. POOLEY (*Archives Ophthalmology* October, 1880,) reports some interesting experiments upon the above subject. He concludes, viz.: (1) The presence of a steel or foreign body in the eye, when of considerable size, and situated near the surface, may be determined by testing for it with a suspended magnet. (2) The presence and position of such a body may most surely be made out by rendering it a magnet by induction, and then testing for it by a suspended magnet. (3) The probable depth of the enclosed foreign body may be inferred by the intensity of the action of the needle near the surface. (4) Any change from the primary position of the foreign body may be ascertained by carefully noting the changes indicated by the deflection of the needle.

Obstetrics.

FATAL PERITONITIS FOLLOWING AN INJECTION INTO THE VAGINA OF A SOLUTION OF ACETATE OF LEAD.—The following case is reported in the *Centralblatt für Gynäcologie*: A woman, aged twenty-two, suffering from an attack of leucorrhœa, was directed to use an injection of acetate of lead. For ten days the injections were made with good results. On the eleventh day, because of an interruption, the injection was badly made. The woman was immediately seized with violent pains in the lower portion of the abdomen, her face became deadly pale and syncope supervened. The doctor was at once called and found the patient presented the symptoms of acute peritonitis. Death followed in seventy-two hours afterwards. The autopsy revealed, besides the ordinary lesions of peritonitis, a precipitate of sulphide of lead on the serous surface of the large intestine, throughout the entire hypogastrium, and even up as far as the umbilical region. The precipitate was in the form of small, round, grayish-black spots, which were quite numerous and thick in some places, while in others they were much scattered and thin.

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Original Communications.

Gonorrhœal Rheumatism; Chronic Bronchitis with Emphysema.

(A Clinical Lecture, delivered in New York Hospital.)

BY WILLIAM HENRY DRAPER, M. D.

Professor of Clinical Medicine in the College of Physicians and Surgeons, New York, Physician to New York Hospital, Etc.

I AM going to show you to-day, gentlemen, a case of gonorrhœal rheumatism. You remember I showed you a case of gonorrhœal rheumatism about six weeks ago, complicated by endocarditis. This complication is so unusual in gonorrhœal rheumatism, that by some authorities it is not mentioned as occurring. There seems to be no reason to doubt that occasionally the endocardium and the pericardium suffer in gonorrhœal rheumatism, as they do in ordinary rheumatism. This is a case in which no such complication has occurred. But this case is especially interesting in consequence of the previous history, which is a history of lithæmia. A history, that is to say, in which we find many of the evidences of that morbid condition of the blood which you will find described as lithæmia, in other words, a state of the blood in which the uric acid is in excess. This lithæmic condition has many manifestations, and this patient presents a number of these manifestations, and therefore I think will prove very interesting to you. He also illustrates what my experience leads me to believe to be very frequently the case, that persons having this lithæmic tendency, this gouty tendency, are very much more likely to suffer, when they get gonorrhœa, from the rheumatic complication, than those who do not possess this lithæmic habit.

I will recapitulate the history, gentlemen, which you have heard the house physician read, and make some remarks upon certain points. First, as to his previous history.

He has a history independently of gonorrhœa, of rheumatism. Eleven years ago he had gonorrhœa, and again nine years ago. Two years ago he suffered from acute lumbar pain running downward in the course of the ureters. The symptoms lasted one week.

He also has a history of very acute attacks of pains in the lumbar region, running down to the testicles. I remember that when he was here a year ago, he was suffering from one of these attacks, and that this attack, as well as previous attacks of a similar nature, were referred to nephritic colic. Attacks of nephritic colic as you know, are almost invariably due to the passage of calculi of oxalate of lime or of uric acid, two products which you often find in persons who suffer from rheumatic or gouty dyspepsia, and who are apt to have an excess of lithates and lithic acid deposits in the urine. If I remember rightly also, when I examined this man two years ago, I found that he gave a history of more or less severe suffering from dyspepsia. I will not be sure about that. There is nothing in the written history with regard to it. But very commonly you will find such a history in persons who suffer from attacks of nephritic colic; the dyspepsia, the gastro-intestinal catarrh being a very common symptom, a very common source of suffering in persons who have a tendency to lithæmia. I speak of this because this dyspepsia is, in my judgment, one of the earliest and one of the most important signs of this tendency, and one which should be heeded as soon as it appears; one which should be treated, if we wish to avoid the subsequent and more serious evils which arise out of the circulation of lithic acid and its combinations in the blood.

This man does not seem to have suffered when he had the first attack of gonorrhœa eleven years ago, from any rheumatism. But eight weeks ago, when he was attacked

with gonorrhœa again, after this gonorrhœa had lasted for three weeks, nearly all the joints became affected, and all the bones ached, and the patient had great stiffness in the muscles of the neck. Now, the history of gonorrhœal rheumatism is very often such as you have described here. It appears seldom earlier than three weeks, and oftentimes as late as five or six weeks. It may appear indeed, at any time, so long as the discharge lasts. The appearance of the rheumatic symptoms is not ordinarily accompanied by suppression of the discharge, but the discharge continues for some time after the rheumatic symptoms occur. The discharge may cease during the rheumatic symptoms; generally does cease long before the rheumatic symptoms subside. This patient has now been suffering five weeks, and the disease has centered itself in a few joints. This is also another characteristic of gonorrhœal rheumatism. It shifts like ordinary acute inflammatory rheumatism, but it has a stronger tendency to locate itself in one or more joints, and to remain fixed for a more considerable period. This man now has the disease chiefly in his two wrist joints, and in his two knee joints. The knee joints are the most commonly affected. It most frequently shows itself in these joints, as is the case with ordinary inflammatory rheumatism. It has a preference, like ordinary acute rheumatism for the larger joints, for the elbows, for the shoulder joints, for the hip joints, for the knee joints, and for the ankles; rarely occurring in the smaller joints of the hands and feet.

This disease is accompanied, as in this case, with moderate fever. The fever as a rule does not run nearly as high as it does in acute inflammatory rheumatism. It has not the same tendency to acuteness of symptoms in any respect. There is great tenderness and great pain on any attempt to move the joints, and the joints may present exactly the same appearance which you find in ordinary acute inflammatory rheumatism, though as a rule I think there is not the same tendency in gonorrhœal rheumatism to synovial distention. The disease appears to be confined to the fibrous structures around the joint, and not in the majority of cases to present such an intense degree of synovial distention. This man, you observe, has very considerable enlargement of his wrists. The

left one I think, is rather more enlarged than the right. You observe that it gives him pain to extend the hand, and I presume it would give him a good deal of pain to supinate the hand. You observe that in his knee joints there is not as much puffiness as you commonly see in the acute form of rheumatism, but there is some distention in the synovial sack, to a moderate degree, however.

The disease, then, as you will remark from this case, and from what I have said of its general characteristics, is a subacute disease; it is a subacute rheumatism, and I do not know how we would distinguish it from an ordinary case of subacute rheumatism which was not associated with gonorrhœa. It has one peculiarity which I would advise you to fix very strongly in your minds, for it will certainly be fixed there when you come to have any experience with the disease, and that is the chronicity. It is the most obstinate, the most rebellious to treatment of all of the forms of rheumatism; the most discouraging. You know that we do not hesitate, now-a-days, to make a pretty favorable prognosis of rapid cure in a case of acute articular rheumatism. The success which is met with with the alkaline treatment, and especially with the salicylic acid treatment, leads us to anticipate, in the great majority of cases of ordinary acute rheumatism, a very good result within a week or ten days from the time the treatment is adopted. But I regret to say that neither alkalies nor salicylic acid, nor iodide of potassium, nor colchicum, nor actea, nor any of the remedies that have been used in the treatment of rheumatism seem to have any effect upon this most rebellious form of rheumatism. There is one thing that does cure it, and that is time. If there is any truth in the old adage, that six weeks will cure rheumatism, it is very frequently illustrated in this form of disease, for it will get well as time progresses. And there are a great many remedies, I suppose, that have got the credit of curing the disease, provided they have had the good fortune to be administered during the decline of the disease.

Now, in regard to its pathology: There are two views concerning the pathology of gonorrhœal rheumatism: one, that it is a sort of pyæmic poison; that the joint disease is

a complication, directly, of the gonorrhœa, and due in some mysterious way to a purulent absorption taking place in this disease. Others regard it as simply an expression of the rheumatic habit, or as simply an expression of the gouty diathesis.

In regard to the pyæmic theory, it is to be objected that this form of pyæmia is very unlike that we ordinarily call pyæmia, which complicates abscesses and suppurating joints. In regard to the theory that the joint disease in gonorrhœa is only another expression of the same habit of the body which tends to gonorrhœa chronic, there is this to be said in its favor: experience shows that there is a very great difference in the rapidity with which different patients recover from gonorrhœa. You know, or will know one of these days, that it is not very safe to predict with any certainty the time within which you will cure an ordinary case of urethritis. You must be extremely careful with regard to this point, for the history of this disease shows that the most successful forms of treatment will very often fail with certain individuals. In some instances a catarrh of the urethra, the result of an impure connection, will get well within a week or a fortnight, and absolutely well. In other instances it will linger on as a chronic malady for months and even years. Now, this difference in the chronicity of gonorrhœal inflammation, of this particular form of urethral catarrh, must depend upon some peculiarities in the individual who is unfortunate enough to have the disease. There are many who think no more of a gonorrhœa than they would of an ordinary cold, and they get well of one about as rapidly as they get well of the other. There are others who never meet with this misfortune without knowing, from previous experience, that it means months before they recover. Now, what is it in an individual that makes this difference? Those who say that gonorrhœal rheumatism depends upon a gouty or rheumatic habit of the individual, say that there is something in the lithæmic blood of the gouty patients which tends to protract any mucous inflammation. Now, this statement I think your experience will corroborate in a good many instances. The gastro-intestinal catarrh from which gouty patients suffer, oftentimes in the form of dyspepsia, is a very troublesome disease, a very rebellious

disease. The bronchitis from which gouty subjects suffer is a perfectly well recognized form of disease—the gouty bronchitis is simply a chronic catarrh of the bronchial tubes, occurring in gouty subjects, seems to be perpetuated by the poison of their blood. The gonorrhœa which occurs in the gouty subject is apt to become an exceedingly chronic disease. Now, these facts in regard to the persistence of mucous catarrhs in gouty subjects seem to have some relation to the occurrence, the occasional complication of these cases, with joint diseases. It seems to be a sort of gouty rheumatism that these patients have.

Now, you may ask me whether the success of the treatment of these cases appears to bear out this theory of the gouty origin: whether, by treating a patient with this form of rheumatism according to the formulæ which are proper in the treatment of gout, they will get well? I regret to say that the proof which we might hope for from this source is not of the most satisfactory kind. One thing is very certain, and this is a negative sort of proof, that the patients who are suffering from this form of disease must not be allowed to use the kinds of food and the kinds of beverage which we know are inimical to this diathesis. And this is just as true of the treatment of the arthritic complication in this disease as it is true of a chronic urethritis, which exists in the gouty subject. There is no regulation more important in the management of a patient with a chronic catarrh of the urethra, which you suspect to be of gouty origin, than the warning against wine and beer, and the kinds of food that provoke activity. You can convert a chronic gleet into an acute urethritis as often as you please with these patients by letting them indulge in fermented liquors and in sweets. So that, so far, the management of these cases proves that this complication is of gouty origin. They are made worse by the use of wines, or beers, or ciders, or sweets. Their diet must be managed with the same care with which you would manage the diet of a patient suffering from gout.

But this question of pathology is one which is still subject to consideration. I commend it to you, and would advise you to observe your cases in reference to their gouty characteristics. Remember that the

disease known as gout is not the arthritic disease—simply, which formerly went by that name. The sense of this term is no longer restricted to the arthritic manifestations of gouty disease. When we speak of gout, we speak of a diseased condition of the blood which has many manifestations. This diseased condition of the blood is one which we described as lithæmia, a condition in which the blood is poisoned by an excess of the combinations of uric acid, and it has many manifestations. It manifests itself by tegumentary affections, by catarrhs of mucous membranes, by arthritic affections, by affections of the muscles, and by affections of the nerves. It is a general disease, a disease having many expressions. It is a disease which you will recognize in persons having a distinct gouty inheritance; it is a disease which you will recognize by a peculiar kind of dyspepsia, in which there seems to be an inability to digest any considerable amount of the hydro-carbonaceous foods, of sweets, of starches; a disease in which wines and beers are very prone to produce acid dyspepsia; it is a disease which you will recognize by the tendency which these patients have to the presence of deposits of lithates in the urine; it is a disease which you will recognize by the tendency, when they get any catarrhal inflammation, of that catarrhal inflammation to become chronic and rebellious to treatment; it is a disease which you will recognize in persons who are just entering upon middle life, oftentimes by peculiar arthritic affections which formerly constituted what was understood as gout.

This man has had the characteristic malady. He has had an inflammatory affection of his smaller joints; he has had the disease in the joint which is more liable than any other to the first, and to repeated attacks of inflammation, namely, the tarso-metatarsal joint. This is the joint, you know, which bears the greatest number and the most severe shocks in the movements of the body. And this is the joint that suffers more than any other. This man has already had gout in his toes.

Now, in regard to the treatment. I have already said that this is a most discouraging disease for treatment, and yet there is a great deal of importance to be said upon this subject; and one of the most important

things to be said is, that you should make your patients rest. Anybody who has a rheumatic affection of the joints, whether it be gouty or otherwise, must adopt this method of cure. You will find the disease will be constantly aggravated by any effort at movement. Rest, then, is absolutely essential in the treatment of this disease.

Diet is a matter of very great importance, and one which, I believe, is very much neglected in the treatment of rheumatism, and especially chronic rheumatism. I think you may take it for granted, that in every case in which the gouty habit is strongly or well marked, the power of these patients to digest the hydro-carbonaceous foods is greatly diminished, and you will find that any attempt on your part to feed these patients with this kind of food will make them uncomfortable, and will probably aggravate their disease. Hence, I should exclude from the diet of this patient, and of all patients suffering as he is, sweets in every shape and form. I should also give him very moderate quantities of starch, which, next after sweets, is more liable to be digested with difficulty than any other kind of food. I speak of these two things particularly, and especially of starch, because there is a notion very prevalent that there is nothing so good to give a patient who is confined to his bed, as some form of gruel or mush. I believe this to be a great mistake; and in the place of food of this sort, I would advise you to feed your patients with milk, with animal broths, and if you give them starch in any form give it in the form of wheat, and in the form of good bread. Butter, and all forms of oily food are commonly pretty well digested by these patients, but sugar and starch should not enter into their diet when they are in bed and suffering from this disease. So much for the rest and the diet.

Now, as to medical treatment. I have said to you that every drug that has been vaunted for the cure of rheumatism has been used in this disease, and that all of them may be said to have signally failed. I have never seen, I think, a case of gonorrhœal rheumatism that was materially benefited by salicylic acid, and yet salicylic acid is one of the most successful remedies we have in the treatment of acute gout, and in the treatment of gouty dyspepsia there is no remedy of greater value. But in this

disease it seems to do very little good. Then, iodide of potassium has been used alone and in combination with colchicum. I must say that I have given this with the greatest fidelity and repeatedly in these cases, and I have not seen any special benefit derived from it. The same is true of other forms of alkaline remedies. Effervescing preparations of soda and potassa have failed, and I cannot say that I know of any drug, gentlemen, that will assist you very much. I am at present in a very discouraged frame of mind in regard to gonorrhoeal rheumatism, for I have been attending a gentleman for about six weeks who has been confined to his bed in one position, unable to move his knees, unable to move his ankles, unable to move his elbows; with moderate fever, with occasional profuse sweating, with a wretched condition of his digestive organs, with intense pain whenever anybody attempts to move the joints, without any very acute inflammation of these joints, and yet he will not get well. He has passed his six weeks now, and I think is slowly improving. This improvement has taken place since I began to give him *actea racemosa*, and I am inclined to think that the *actea racemosa* has done him some good. But, as I told you, beware of drawing too positive conclusions from any remedies which are given at the period when you may expect a decline of the disease. There is nothing, in my judgment, that makes suggestions in regard to remedies more fallacious than the fact that many of them are given when the disease is naturally on the decline, when it is worn out. Doctors and drugs get a great deal of credit which they do not deserve in the treatment of diseases which have a self-limited career, and which get well under the greatest diversity of remedies, and I may say the greatest diversity of doctors; so that, while I would like to think the snake root had done my patient some good, I hesitate to think that it has done so. I put this man upon it simply because I found the other man improved while I gave it to him. This man, I think, is a little better than he was, but he has been sick five weeks. He ought to be getting better in the nature of things, so that I shall not feel justified, if he is a good deal better next Monday, in saying to you that I think the *actea* has done him any good.

There is a great deal to be done in the local management of this form of rheumatism, and of every form of rheumatism; a great deal that wants simply palliative treatment. This must always be separated from so-called curative treatment. But it is a very important part of the treatment and it should not be neglected. Patients with rheumatism of any form are very great sufferers, and everything that can be done for their relief, to free them from pain and suffering, should be done. I mention this because I think we often neglect things that we might do and do successfully in our efforts to do that which we cannot do, try we ever so hard. Now, I have told you that I do not believe, unless the art of medicine advances far beyond what it is at the present day, that you will ever have any very brilliant success in curing gonorrhoeal rheumatism; but I do believe you can do a great deal for the relief of these patients, and I would urge you always to consider that which you can do for the relief of the pain and suffering of your patients, without striving to do that which experience shows you cannot do. In this disease it is pretty certain, in your efforts to cure, if you are zealous, you can do a great deal to increase the suffering of your patient. If you attempt to give him all the drugs that have ever been prescribed for this disease, you will put him in greater misery than his disease puts him in.

But now, in regard to the palliative treatment. You must put these joints at rest, and if you cannot put them at rest by moveable supports, by pullies and by rests of different kinds, you must put them in splints, and this is a thing that may be done in many cases of acute inflammatory rheumatism with the greatest advantage. Put the joints in splints so that the movements of the clumsy nurse, or of the solicitous friends, will not make your patient cry out in agony. You can readily splint them, and protect them as I say in this way from the movements which cause so much pain.

Then, you must give them opium. Let me urge you always to consider this point. These patients should not be allowed to suffer pain if you can prevent it by legitimate and safe means, and do not in your efforts to cure the disease, to neutralize the poison, forget the palliative treatment. Do not for-

get to keep them as free from suffering by drugs, if drugs be necessary, as you can. Give them at least good nights, and give them all the rest you can in the day time, and remember that this may be by far the most important function that you will have to perform in the treatment of these cases.

CASE II.—This man, gentlemen, refers his illness only two weeks back. But I would like to ask any man here who is familiar with the modifications which are produced in the chest by more or less constant cough, whether you believe, from looking at this man's chest, that this is the first time, the past two or three weeks, that he has suffered from that. You observe the roundness of his chest, the curve of his back; you observe the sinking above the clavicles and the sinking under the clavicles, and you observe the effort made by the respiratory muscles, which are ordinarily only accessory to breathing, but brought into play here to make this man breathe comfortably. He moves his sterno-mastoideus, he moves his trapezius, and he moves his diaphragm tremendously, and the expansive movement of his chest is considerably restricted.

Now, this man tells us, when we come to inquire more particularly, that he has had for two or three months every winter a cough, and I have no doubt that he has had difficulty in breathing and more or less bronchial irritation for a good while. I would not like to say how long, but it is evident from the appearance of his chest that he has had modifications taking place in his respiratory apparatus which have been produced by long-continued disease.

He says he has not been troubled with shortness of breath until within the past three weeks. What is your business? "I blow in the glassworks." You observe, gentlemen, there is slight dullness under the right clavicle; there is no variation over the supra-spinous process. The two sides are symmetrical, producing the same tone on percussion. There is a little dullness lower down, at that point, behind on the left side. I find very decided modifications of the respiratory murmur, the true vesicular murmur, and it is the departures from this murmur that you have to observe; and in order to appreciate the departures, let me repeat to you what I have said often before, that you must become perfectly familiar with the

sound of the normal respiratory murmur. Having that fixed in your mind you will be able to appreciate any departure from it. Now, I find on examining this patient that everywhere the respiratory murmur is exceedingly feeble; in some places it is lost. It is only with very violent effort that I can get the murmur, even the ordinary vesicular murmur. It is extremely feeble; in places it is lost, and I feel simply the elevation or the expansion of the chest, and no sound whatever is conveyed to my ear. And yet, over these places, where no sound is conveyed to my ear of the vesicular murmur, I get rather an exaggeration of the normal resonance of the chest. Now, what does that mean? "Emphysema." Yes, it means emphysema. This man's chest presents a very good example of the emphysematous lung; and yet he tells us that until two or three weeks ago he never had any trouble, and that, beyond a winter cough that he speaks of, he has been a very well man. But those winter coughs, those chronic catarrhs that he has had have been the cause of the emphysematous condition of his lungs. Emphysema is associated with two conditions. It is the result of very violent efforts at coughing, and it is the result of the degeneration which takes place in the walls of the air vesicles. In a person of his age who is entering upon the period of degeneration, both of these elements may conspire to cause this condition, and they very frequently do. This degeneration of the walls of the air vesicles makes them yield very easily to any of the violent inspiratory efforts that are associated with chronic persistent cough, or with the acute attacks of bronchitis to which we are all liable. Did you ever have asthma? Do you know what I mean? "I used to get great suffocation in the chest often. It would go away, but on going to work again it would come on me again. I would take a bit of cough drops in my mouth and drive it back again." How long has that been? "A couple of years or more." Has it been four or five years? "No, sir."

You observe, gentlemen, how difficult it is to get at the subjective history of patients who come under our observation in hospitals and in dispensaries. Now man with the best intention in the world, with the desire to give us all the information he can with regard to his disease, would have us be-

lieve he has been sick but three weeks; all of which shows the importance of your relying more upon objective signs than upon the subjective statements. I can not urge too strongly upon you the cultivation of the objective examination of diseases. When you strip this patient and look at his chest, this wide antero-posterior curvature, this contraction in front, this evidence that the accessory inspiratory muscles have been called upon to do a great deal of work, you find evidence which no amount of swearing on his part would lead you for an instant to gainsay. And you will find that that is the case very often. Sometimes patients lie with a purpose about their disease. This is eminently true with the venereal diseases; and yet if you are perfectly familiar with the objective manifestations of syphilis, you would not believe a patient for an instant who should tell you that he had never had a chancre. The diagnosis of disease never will be entirely satisfactory, I suppose, until it is always absolutely based upon objective phenomena; when there shall be no occasion to ask the patient any questions; when by physical examination alone—when I say physical examination I do not mean the restricted physical examination which we have in this disease, but something larger and better, and more complete, which is coming in the future—I say the art of diagnosis will not be perfect until it is based for the most part upon physical signs, upon the objective signs of disease. Most of the acute diseases we recognize now by objective signs, and many of the chronic diseases have such a physiognomy impressed upon them, and such modifications of physical formation going with them, that he that runs, who is skilled in diagnosis, can read them without asking the patients any questions. Let me urge upon you, therefore, to cultivate in every possible way the art of physical diagnosis. Use your senses, use your knowledge in this direction, and do not use it in asking your patients useless, fruitless questions, to which in the majority of cases you will get imperfect, useless answers, but rely upon what physical examination teaches you.

This man has chronic bronchitis with emphysema. I find no lesion of his heart. I infer that he has for a considerable period suffered from a chronic bronchial catarrh, which has been associated with a somewhat

feeble, degenerated condition of body, and he has now as a complication of his bronchitis, emphysema. This is a very troublesome, serious complication, as I shall tell you when we come to see cases in which this complication is more advanced than it is here, you will find that emphysema leads, sooner or later, to dilation of the right heart, for the reason that the blood circulation is so seriously interfered with by the extension of these air vesicles that the right heart receives the blood from the systemic circulation more rapidly than it can force it through the lungs. I have no doubt that we should, were we to search carefully, find some evidence of congestion of the right heart, and it is probable there is some congestion of the abdominal viscera. The house physician informs me that his liver and spleen are already both enlarged, and after this will come, probably, some peritoneal dropsy; after the peritoneal dropsy, some anasarca of the lower extremities. This is the issue of these cases where they occur in persons who are obliged to work for their living, as this man has, and who must strain their blood circulation more or less, constantly. The evil day might be put off for him, if he were living a life of leisure, and were not constrained to make those physical efforts which put upon his lungs and heart more work than they can easily do. But this is the end: where emphysema is extensive, it inevitably interferes with the blood circulation; interference with the blood circulation, distension of the right heart; distension of the right heart, systemic obstruction; systemic obstruction, enlarged liver, spleen, chronic catarrhs of the gastrointestinal mucous membrane, peritoneal dropsy, finally anasarca. This man has not got very far on that long road, but he has begun upon it, and unless we can improve his general condition, stop his bronchitis, stop the necessity for these violent efforts at coughing, and if we can put him into position of leisure, where he would have an equable circulation, with never any strain upon him we might keep him with us for a good many years yet. But his bronchitis must be cured. Why? Because you must stop these violent coughing spells, which constantly increase the emphysema. Then, if we could give him, as I say, an employment which would not tax his circulation, he could get along for a long time. It is sur-

prising how little blood apparatus, how little circulatory apparatus a great many men get along with for a long time who are in favorable conditions, but when you come to unfavorable conditions, then there is not much that you can do.

Diphtheria.

BY WM. B. SPRAGUE, M. D.

(Paper read before the Detroit Academy of Medicine.)

NOTWITHSTANDING that diphtheria has prevailed in different parts of the world since Hippocrates' time, and has probably received as much attention from pathologists as any other disease, there is no pathological condition concerning which so little has been positively determined, both with respect to its etiology, pathology and treatment, as this dread destroyer of the human race. Its epidemic character has been manifest from the first, and its malignant nature was expressed by its early names, as "malum Egyptiacum," "cynanche maligna," "morbus suffocans," "angina gangrenosa," "malignant sore-throat," etc., while its present name, which expresses its most important characteristic, is meritorious in that it does not presume to explain the pathology, which is as yet undetermined.

Hueter and Oertel seemed to find a very plausible explanation for very many of the phenomena presented, and also a means of differentiation from other throat affections which have so many features allied to diphtheria, when they discovered the micrococcus and bacterium termo upon the membrane peculiar to this disease. Having ascertained that these bacteria invariably exist in connection with diphtheria, even to the exclusion, and seemingly to the extermination, of other parasites, such as *leptothrix buccalis*, *oidium albicans* and *cryptococcus*, Oertel and some others decided some ten or twelve years since that the disease begins as a local affection, usually in the upper part of the respiratory passages, caused by inspiration of air containing the germs of these organisms, and that it extends thence throughout the whole body by way of the circulation. Eberth says: "Without micrococci there can be no diphtheria," and Oertel says that the disease occurs "spontaneously as well as epidemically," and concludes that it is to be considered "a miasmatic contagious disease." And with regard to the diagnosis,

he claims that the only difference in nature between diphtheria and croup is that while diphtheria is a systemic disease produced by a specific poison, croup is a simple form of inflammation and can never pass the bounds of the local process. But by his classification into the catarrhal, croupous, septic and gangrenous forms, I think he includes more than is generally embraced under the name of diphtheria, on which point I purpose to speak further hereafter.

The profession seems slow to accept Oertel's conclusions, yet it seems to me that each year offers some new facts in confirmation of his opinions. There has been an effort to prove an anatomical difference between the membranes of croup and diphtheria, which has finally resulted in the following from the *London Lancet* for September 4, 1880: "There have been few subjects in pathology more debated than diphtheria and the special lesion which characterizes it, from which, indeed, it takes its name, and few about which so much needless confusion and mystery have clung. We may now fairly assume that the vexed question of identity between this disease and that styled 'membranous croup' has been set at rest, and it is not intended here to raise it again." This very positive position is followed by the statement that the difference of opinion which has been held has been due to several reasons, most prominent among which are the facts that the membranes examined were taken from different seats and at different stages of formation, and by an exposition of the researches of M. Leloir, which prove conclusively that the membranes are the same in character in both diseases. But as the epithelium is largely involved in the changes which take place, it is evident that there would be a difference in the appearance of the patches taken from the pharynx and the larynx.

The etiology, also, has been a subject of much discussion, some holding that it is purely contagious, others with Oertel that it is both contagious and miasmatic. I am not aware that the latter theory has at present become even the prevalent one with the profession, but it seems to me that many cases, of which the following are samples, cannot be explained on any other grounds.

The *British Medical Journal* for April 24, 1880, speaks of two houses where the over-

flow-pipes from the rain water cisterns communicated with the soil-pipes from the water-closets, in the first of which, a new house in which there had been no previous sickness, a little girl slept in the room into which the cistern opened. She sickened and died of diphtheria. No one else in the house suffered. In the other house a mother and eight children slept in a room under the floor of which the cistern was located. All of the children had diphtheria and one of them died of it. In both houses the waste pipe from the cistern had a single trap, a bell trap, which upon examination was found to be dry. Dr. W. H. Dickinson, chairman of the committee which presented to the Royal Med. and Chir. Society a report on croup and diphtheria, is quoted by the *Med. Times and Gazette* for May 17, 1879, as saying: "On the other hand we have indubitable evidence that the membranous affection is often produced by infection, by foul air or foul water, or some such cause. . . . Our tables show instances. . . in which the disease has been traced to infection, or poison conveyed by air or water. There was an escape of sewer gas into one of the wards of the hospital for sick children. This caused diarrhœa in some, in one pharyngeal diphtheria, and in another laryngeal diphtheria. . . . Of a group of persons who drank of a specially poisonous well—drainage going into it—two had obstinate diarrhœa, one erysipelas, one purulent ophthalmia, one pharyngeal and one laryngeal diphtheria." These statements were not made for the purpose of proving the miasmatic nature of diphtheria. He seems to take that for granted. The above are but few of the many evidences which we have of the sporadic origin of the disease. Yet some, without being able to give any explanation of these phenomena, claim that it is impossible for the germs to originate in filth or decaying matter; "because," say they, "if these could thus originate, they could not retain their specific character. Hence, the disease must be purely contagious." It appears to me that this claim needs proof. The cases quoted seem to prove that decomposing matter contains not only the specific virus of diphtheria, but also those of typhoid fever and other diseases conceded to be sporadic, which developes the disease whenever landed upon favorable "soil;" and if, as seems

to be generally conceded, the effect upon the system is due to some zymotic action, either from the development of bacteria or from some other cause, is it not reasonable to suppose that the inciting principle, whatever it be, may originate outside of as well as in the body? It is an established fact that the cryptococcus, the yeast plant, is sometimes developed in the body, and Drs. Curtis and Satterthwaite, of New York, with others, claim to have demonstrated that the bacteria of diphtheria differ in no respect, either chemically or optically, from those found in putrescent matter. And whether the disease be due directly to the presence of these bacteria, or to some virus of which they are the carriers, Oertel proved that diphtheritic matter, from which they were removed as far as was possible was no longer infectious.

But Oertel's catarrhal form of diphtheria seems to be most generally considered as an ulcerative sore throat, or a catarrhal pharyngitis with exudation, or an epidemic pharyngitis, or in fact, almost anything but diphtheria. During the winter of 1878 and 1879, I, with my then colleagues, had from fifty to one hundred cases of what we called catarrhal diphtheria, in Battle Creek, of this state, principally among the students of B. C. College, and the families with which they lived. The patient first noticed a sore throat, which he usually attributed to a cold, but this being immediately followed by a fever and general malaise with lumbar pains, he would become alarmed and consult us. Upon examination of the throat we usually found one, sometimes both, of the tonsils much enlarged, a redness of the whole fauces, and either at the first examination or later, we almost invariably found small white patches of the size of a pin head to that of a pea. They were usually situated upon the inflamed tonsil, but occasionally upon some other part of the fauces. Occasionally a case would present a well marked diphtheritic patch of the size of a dime or larger. Sometimes there was scarcely anything resembling a patch. In some cases the cervical glands were enlarged. The temperature varied from 100° to 105° Fahr. In numerous instances we examined portions of the membrane microscopically, and invariably found the micrococcus and bacterium termo. We had reason to think that the affection was conta-

gious from the fact that when introduced into a family, several members were usually affected, except under conditions of which I shall speak presently. Those who nursed or slept with the patients were most liable to the affection. We had no good evidence of its sporadic character, except that we could not trace out the origin of it. In one case, a child of three years, there was hoarseness and dyspnoea. This was the most typical and the severest case that I observed.

The physicians of the other part of the city where only an occasional case occurred, were inclined to doubt our diagnosis, from the fact that there were no fatal cases, nor any which could really be termed malignant, and applied the terms ulcerative pharyngitis, epidemic sore throat, etc. Yet I still believe that the cases were diphtheritic in nature, mostly of the type called catarrhal by Oertel; and I occasionally see an item in the journals which seems to incline in the same direction. The *American Journal* under the heading of "St. George's Hospital Reports," recently contained the following: "Dr. Ogle takes the ground that in a large proportion of cases of diphtheria, there is no visible diphtheritic membrane whatever from the beginning to the end of the attack, and that in this form the disease is as contagious as in the more usual form. In regard to the contagiousness of the disease he entertains no doubt, but says that a longer exposure to the contagion is necessary to produce the disease than in the case of most zymotic diseases. Those who casually come in contact with the sick rarely take the disease." This quotation agrees with our observations with regard to the contagion, but we had some slight appearance of membrane or patches in nearly every case.

Our treatment differed from any I have ever seen reported, in some respects. We first gave the patient a gargle of chlorinated soda, diluted with three or four parts of water. If he presented himself early and had a fair amount of strength we prescribed a Russian bath, then had ice applied to the throat as long as there was any tendency to formation of membrane, intermitting once in two hours, with a fomentation of fifteen minutes duration. Chlorate of potash was the only internal remedy used. I acquired considerable confidence in this manner of

treatment, as every case recovered rapidly. The child with the laryngeal complication was relieved from the dyspnoea in a few hours and recovered in two or three days. But this was the only case which gave any occasion for anxiety, and I may be greatly disappointed when I try it in malignant cases, but I believe that the following extract from a clinical lecture by Cohen, recently delivered, is of value: "And right here, gentlemen, let me direct your attention to a significant clinical fact, the truth of which you can verify by your own studies and observation. It is this: Chlorine compounds, whether administered internally or applied topically, are more frequently efficacious in diphtheria than any other remedy." I am inclined to attribute our success to the use of Labarraque's solution, and its effectiveness to the presence of free chlorine. I shall hereafter use the chloride of iron in addition in most cases. The Russian bath seemed to markedly reduce the temperature and relieve faucial and lumbar pains.

I have noticed some articles in the *Therapeutic Gazette*, of late, with regard to prophylactic treatment. Dr. Buckham, of Flint, writes that he has discovered that the treatment for the disease proves to be preventive as well as curative in families or with individuals who have been exposed. Since his announcement it transpires that several others have used the same means to the same end for years, the origin being traced back to the late Dr. Pitcher, but no further. I was surprised to learn that the matter was not more generally understood, for we practiced the prophylactic treatment regularly, and with no thought that there was anything novel in the idea of prevention. Our success moreover, was marked. I do not recall a case in which it failed. Even where there was beginning redness and soreness of the fauces, it was in some cases successful. The treatment consisted solely in the gargling of the diluted Labarraque's solution every hour. My colleague, Dr. Kellogg, suggested it, but I never heard him say how he conceived the idea. I think that the result which we obtained is a strong evidence of the local character of the disease in its beginning stage, since the gargle only comes in contact with those parts of the respiratory tract usually affected.

The Mechanical Production of Anæsthesia.

(Paper read before the Detroit Academy of Medicine.)

BY HAL C. WYMAN, M. D.,

Professor of Physiology in Detroit Medical College.

VARIOUS theories have been advanced to account for the fact that, increasing the number of respirations up to one hundred or thereabouts per minute, teeth have been extracted and other minor surgical operations performed without pain.

I have observed that during the course of a vivisection, when the thorax was open and the respiration was carried on by means of bellows, that it was difficult to demonstrate the sensory properties of certain nerves. To ascertain further the influence of artificial respiration in controlling pain, definite trials have been made in the physiological laboratory of the Detroit Medical College. A small terrier was fastened to a table, a small tracheotomy quickly made without anæsthetic; the nozzle of a close-working Davidson syringe introduced into trachea and air was forcibly driven into the lungs. The chest was quickly distended and soon all efforts at respiration ceased. An incision made in thigh to examine crural artery and nerve, which was strongly pinched, elicited no wincing. The crural artery was found pulsating, demonstrating that circulation, so far as heart factor was concerned, was normal. With syringe nozzle in trachea, cries as result of pinching crural nerve were of course impossible, but the spasm of muscle usually observed when nerves are irritated were absent. Next, the nozzle of syringe was withdrawn, and while there were yet no respiratory movements an awl was thrust through the skull upon the fifth nerve, the trunk broken as manifested by change in pupil, but no cries or other signs of pain were noticed, notwithstanding. This is known to be one of the most painful vivisections. The dog after a few minutes recovered respiratory movements, but in the course of half an hour had several epileptic seizures. Twenty-four hours later he was dead. Autopsy showed that the pons had been broken by the awl and that there was considerable extravasation of blood about the medulla and cerebellum. Clearly death was not due to the artificial inflation of the lungs.

A few days later a larger dog was subjected to trial. A bellows was used in place of the syringe to inflate the lungs and main-

tain the oxygen in the tissues. The animal struggled violently like one asphyxiated. The respiratory muscles after a time became quiet. The integument was pinched without provoking signs of pain. The wound in the neck was enlarged and both pneumogastrics cut. Then the bellows were removed from the trachea, and half an hour later the dog was led into the amphitheatre to demonstrate before the class the effect of section of the pneumogastric nerve upon respiratory movements. This dog died on the fifth day, signs usual to death following section of both pneumogastrics.

In laying these statements before the academy it is not my purpose to herald some new and startling discovery, but to present certain curious phenomena of animal life which have not been satisfactorily explained. I believe that the animals experimented upon and the persons who have had teeth extracted by the rapid breathing process were insensible to pain; but it is difficult for us to see just how that should be the case. Brown-Sequard, in the *Gazette Medical de Paris*, says if you pour chloroform upon the neck (epileptic zone) of a guinea-pig the animal will experience an epileptic seizure of transient duration, which will be followed by profound anæsthesia. If chloroform is poured upon the shoulder of a cat or dog, he claims, the result will be the same—production of profound anæsthesia. He has exhibited before the *Societe de Biologie* a cat treated in the above-mentioned manner, which exhibited such profound sleep that pinching and pricking gave no evidence of sensibility. I have repeated these experiments of Brown-Sequard, but without success, and without further trials I will not dispute the statements attributed to the distinguished professor of the College de France.

These phenomena suggest certain explanations. We can attribute the insensibility to pain during tooth extraction, preceded by rapid inspirations, to interference with the circulation in the cranial cavity. We know that rythmical impulses in the cerebral circulation occur synchronously with the respiratory movements of the chest. Majendie supposed these impulses due to the presence of a valve at the junction of the subclavian and internal jugular veins.

Rapid inspiration will interfere with these

impulses and interfere with the nutrition of the brain, inhibiting certain of its functions—that of sensibility in some cases and consciousness in others. Carbonacucia—carbonic acid—when increased unduly in the blood will produce insensibility. The rapid inspiration may retard the free exit of carbonic acid.

In the experiment with inflation there was certainly retention of carbonic acid, because means were taken to prevent its exit.

Comparative anatomy presents a point that will apply to these cases. Animals, as we descend in the scale, appear to exhibit insensibility to pain in proportion as they tolerate carbonic acid. In plants which tolerate most carbonic acid we have little or no sensibility.

In the dog trials, the inflation of the chest in taking off atmospheric pressure from the veins will interfere with the rythmical impulses of the cerebral sinuses.

In the Brown-Sequard trials the chloroform may make so decided an impression upon certain sensory ganglia that there is no more nervous energy to be exploded in response to other irritants, a condition allied to the insensibility to pain observed in hypnotized subjects when consciousness as a function of the cerebrum is inhibited.

Puerperal Fever.

BY HENRY J. REYNOLDS, M.D., ORION, MICH.

(Read before the North Eastern District Medical Society.)

THE term "puerperal fever" is generally intended to embrace nearly all the morbid conditions accompanying childbed, wherein notable increase of temperature, abdominal pain, or both, form a characteristic feature. The predominating feature of some of the forms may be found in diseases independent of parturition—peritonitis, for instance, septicæmia, etc.—but occurring during childbed they generally all have certain common characteristics that seem to be peculiar only to the parturient state, hence the name "puerperal fever." The morbid condition may be simply a uterine inflammation, a cellulitis, pelvic peritonitis, or a general peritoneal inflammation, or it may be a septicæmia, or pyæmia alone, or combined with any one or all of the above morbid conditions. This disease is commonly regarded as one of the most stubborn and fatal diseases the practitioner meets with. To any person who fully realizes what either simple

general peritonitis or septicæmia is in its uncomplicated state, it can readily be made very clear why the *two* diseases combined, in a violent form, must necessarily prove fatal in most instances, in spite of all kinds of treatment; such is the condition in some forms of puerperal fever, especially during epidemics. But, on the contrary, where the disease is purely a simple, uncomplicated inflammatory condition, in an otherwise healthy subject with good vitality, the mortality need not necessarily be great with prompt and efficient treatment. Why it is that a certain line of treatment cures all, in the hands of one practitioner, and utterly fails in the hands of another, may also be accounted for in this way. The septicæmia or pyæmia may be a result or complication of any of the above named inflammations, and vice versa, so that the name "puerperal fever" gives us at the best a very vague idea of what the exact pathological condition is; and it may be that a description of each different form as a separate disease, would give us a more accurate idea; but the fact of their being in all the different forms or grades a *uterine disturbance*—we'll call it—as well as a complication of several of the different forms in many cases, gives us a set of symptoms common to all, and thereby renders a division or classification of them into different diseases almost impracticable, if not impossible. A great many specific poisons, such as that from the different eruptive fevers, etc., when generated in the system of the parturient female, produce at times a fever of a "puerperal" type, and it seems to be owing to the fact of there being a *great centre of irritation*, the uterus, which, if having *any* modifying influence upon septic materials thus introduced, which it undoubtedly does, would have a *similar* effect upon all while that organ is in a state of irritation; the *modus operandi* of which seems as yet to be obscure; and hence we have the *same* "puerperal" type of fever from the generation of different poisons. In fact, it seems as if during an epidemic of puerperal fever, a septic material of almost any specific nature, introduced into the vagina or uterus by the accoucheur, will produce that disease, the predominating feature then being that of blood poisoning.

With regard to the diagnosis of puerperal fever, little need be said in this paper more

than that it is of the utmost importance that the exact pathological condition be ascertained as nearly as possible, before we can arrive at anything like an intelligent idea as to what course of treatment to pursue.

The treatment must, of course, be governed entirely by the form of disease and symptoms we have to contend with. For convenience sake, we might speak of treatment under two general heads, viz: that indicated in the *sthenic* or inflammatory, and that indicated in the *asthenic* or non-inflammatory form of the disease; but we are obliged after all, to work more or less upon general principles. If the first symptoms we meet with are those indicating cellular or peritoneal inflammation in a violent form, I regard opium as the most valuable of all remedies, and would immediately administer full doses of it in some form, either by the mouth or by hypodermic injection—preferring the latter on account of its more prompt action—and would repeat the dose every half or three quarters of an hour, until the system was brought as fully under the influence of the drug as we would feel warranted in doing with safety; and it is remarkable what an enormous amount will be tolerated in these cases. Blood-letting is also indicated in some cases of this form. I also make use of hot fomentations to the abdomen, generally in the form of sacks containing bran scalded with water containing a little turpentine, which with a little laudanum sprinkled on the surface of the sack next to the body, seems to have a very soothing and beneficial effect. It also has the tendency to produce copious perspiration, especially if aided by the administration of Dover's powder, which in most cases I think, is more judicious depletion than the use of the lancet. I also cleanse the vagina with injections of water as warm as the patient can bear comfortably, two or three times a day, sometimes adding a little carbolic acid. Tonics and stimulants are indicated later in the disease, particularly so if symptoms of blood poisoning occur. My experience has been that where the inflammation has not existed long enough to become too much seated, or to produce too great a shock to the system, in the great majority of cases of this form treated as above, we get successful results, and the patient in time fully recovers; even where we have more or less symptoms of

blood poisoning, and especially so if the cases be of sporadic origin. If the disease progress favorably, other indications will be met as they appear from time to time, leaving the bowels constipated for a week or ten days, or more unless spontaneous diarrhœa should set in.

If on the other hand the disease take on the *asthenic* or non-inflammatory form from the onset, that is, where the original symptoms seem to be those resulting from the generating of some specific virus in the system, a considerably different course of action seems to be indicated. Although in this form we may have inflammatory symptoms from the first, they rarely predominate; and while most of the treatment laid down for the *sthenic* form may be indicated, only perhaps in more moderation, yet in order to lay down any accurate rule to follow in the administration of drugs, that may have a *certain* curative effect, something vastly different has to be done, and what that is seems as yet to be the *great puzzle* in the treatment of puerperal fever. It seems as if there was no remedy known to have anything like a controlling influence on this form of disease, but a great deal can be accomplished by treating symptoms as they occur, free use of stimulants, tonics, etc., and good nourishment. One great difficulty in the treatment of this form is the irritable or unsettled condition of the stomach in many cases. It is quite probable that mercury carried as rapidly as possible to the extent of affecting the gums, with a hope of its producing a beneficial alterative effect upon the blood, would be well worth a trial; but further than this we must depend on our judgment, and treat symptoms as they present themselves. The nourishment, tonics and stimulants must, however, be pushed vigorously. Some authors go so far as to say that, use what treatment we will, we must expect to lose one out of every three of our patients affected with this form of puerperal fever.

A Parable.

(Read at the Annual Supper of the Prismatic Club.)

I AM not entirely averse to wit. I can endure, with a half pleased equanimity, the rippling flow of a genial humor. Because I am virtuous I do not wholly despise the cakes and ale of a little fun. In a suitable loco, it probably is bonum to desipere. The pipe and the bowl and the fiddlers three that

cheered the royal soul of the jolly old King Cole, are not utterly condemned. *Tempus est ludendi*—but it is well to remember that that *tempus* must be *fugacious*. The jiggling fiddle must be replaced by the solemn shawm and the sackbutt also—whatever they may be; and the placid pipe and the bounteous bowl must be laid away for the sterner things of life. We have had wit to-night; fun has been here; sport that wrinkled care derides, and laughter holding both his sides. Delicate humor has glowed around us like the shifting corruscations of the aurora. Mine shall be the graver duty of inserting into your souls some nutritious morsels of wisdom. The fiddle has been heard—listen now to the slow paced sackbutt. We have had the dulce—here is the utile. *Post jucundum senectutem.* (Exit Mr. Momus. Enter Miss Minerva.)

The humpbacked Esop taught in fables. My personal back is tolerably straight, but I have yet humped myself in parable as follows:

There was a bottle of blue liquid in a druggist's window, and it was great and gorgeous and beautiful. And at night the gas-light shone through it, and it tinted the whole street with blue, and the passers-by winked the snow-flakes from their eyelids and admired it, and said, O! what a happy bottle! And it shone, and glistened, and flashed, and proudly puffed out its great, round, smooth, vitreous belly.

And the beautiful daughter of the druggist often passed by, and the haughty bottle loved her desperately, for her bright eyes frequently peeped slyly in at the window and rested admiringly on the bottle, and, like him, they were blue; and, like him, they were shining; and he said to himself, "How well we are matched!" And he longed for the day when he could lay the round knob at the top of his graceful glassy stopple on her soft bosom. But the sponge loved her too. He looked through the meshes of the basket in which he was lying and sighed away his soul in a passion that was hot enough to almost fuse the flinty grit that looked through all his pores. And the tooth brushes, and the soap balls, and the aqua. amon., and the tinct. canth., and ess. pep., and the pulv. rhub., all adored her; and even the despised cathartic pills presumed to lift up their little, round, bald heads

in passionate love for her. And so there was great jealousy and war in the druggery. But the beautiful bottle strutted and swelled and carried his stopple so high that all his rivals sickened with envy and wrath.

But they finally agreed to leave it to the lady herself. She should decide. Which-ever she loved, the rest should retire. And so, when she came into the shop one day, they all held their breath and their hearts almost stopped beating. And she just glanced at the haughty bottle, and her sweeping skirts knocked over the basket and the love-sick sponge went rolling across the floor, and she never even looked at the castor oil or the aqua. amon., but she selected, bought, paid for and bore away as the chosen lover—tender and true above all others—the happy, happy pill-box; and the humble little pills danced in transports of joy at the thought that they, and not the proud stopple, would lie in her soft bosom. And they did lie in her bosom; and as is the case, alas! in many marriages, she presently repented of her choice, with bitter groans and gripes. And the sponge said, "I told you so!" And the bottle said, "This comes of marrying out of one's station!"

This parable instructs us that great, beautiful bottles, like Bartlett & Henry, and even sponges like—like—several in this presence, are sometimes outdone and beaten by a modest little pill—like, for instance, the fabulist.

W. S. P.

CORRESPONDENCE.

EDITOR DETROIT LANCET:

I submit herewith a report of a case which to me is very peculiar and rare. I know that several similar cases are reported, but never before met with one.

Mrs. R. was confined November 9th, 1880, and delivered of a fine, unusually large and well developed female child. On the 13th the nurse noticed a discharge of blood per vagina, which alarmed her, and she immediately sent for me to ascertain the cause. I could account for it in no other way after a careful examination, but to decide that it was a menstruation. This continued for four days, and stopped naturally, but was followed by a discharge for a day or two, resembling leucorrhœa. This did not seem to interfere in any way with the health or growth of the child. On the 10th of December the child again menstruated, continuing

three days this time. I shall watch the child carefully, and report through your columns as to its progress.

This is not a fictitious case, but one which can be verified by several witnesses who have seen the child.

C. H. LITTEL, M. D.

Geneva, Iowa, December, 1880.

EDITOR DETROIT LANCET:

The enclosed slip, which I clip from the last number of your journal, will you please do me the kindness to reprint? The portion I have italicised I would hardly have believed a reputable medical journal like yours would have added, as a foot note, to an article clearly so rampant and uncalled for, as that which you copy from the *St. Joseph Med. and Surg. Reporter*. With this, let us drop the matter, so far as the *Lancet* is concerned:

"The *St. Joseph Medical and Surgical Reporter*, December, 1880, says: "We selected from *Leonard's Illustrated Medical Journal* for October, and inserted in the *Reporter* for November, what purported to be a biographical sketch of Prof. John T. Hodgen, of St. Louis, President of the American Medical Association. While we did not just like the appearance of the work from which we selected, we supposed, of course, that the statements made in the 'sketch' were authentic—that they had been obtained from some source worthy of credence. In this supposition we were, however, mistaken, as we have since learned that the *truths* contained in that article are the *exceptions*, and not the *rule*. For instance, Dr. Hodgen was *not* born in Pike county, Illinois; his early years were *not* spent at the carpenter's bench, nor has any of his days been so spent; he did *not* commence the study of medicine in 1845; he did *not* graduate at the St. Louis Medical College; the St. Louis Medical College was *never* known as the 'McDowell Medical College,' nor did he graduate in 1849." *The editor of the St. Joseph Medical Journal is in a very disgusted state of mind at the unreliable character of his authority.*

Now, as to the injustice of the *Reporter's* article:

(1) *Leonard's Illustrated Medical Journal* NEVER ASSERTED that President Hodgen was born at such and such a date, or that he graduated at such a definite time, etc., etc., as the *St. Joe Reporter* asserts that our journal did. If you, or any one will take the trouble to read our biography of Prof. Hodgen, you will see clearly that the *Reporter* is wrong in its assertions. We said he was born ABOUT such and such time, etc. We were guarded not to assert it positively, from the fact that our correspondent, who fur-

nished us with the data, did not positively know. But we will wager anything the editor of the *St. Joe Reporter* may wish to name, against his old hat, that our dates, etc., are but *very little* out of the way.

We are confident of this from the fact that our correspondent has long been acquainted with Prof. Hodgen, has long been a resident of St. Louis, has long been connected with———, and is far more widely known in this country, and even in Europe, we doubt not, than is President Hodgen himself. So much for the "source worthy of credence" that the *St. Joe Reporter*, in its swaddling clothes, holds up to ridicule. As to the St. Louis Medical College being known as McDowell's, probably our esteemed correspondent was in error.

Now, if the assertion of the *St. Joseph Reporter* BE TRUE, "that the *truths* contained in the article (the Hodgen biography taken from our journal) are the *exceptions*, and not the *rule*," then we are to believe (for our article asserts to the contrary) that Dr. Hodgen is *not* a professor of clinical surgery at the City Hospital; (2) that he is *not* dean of the St. Louis Medical College; (3) that he is *not* professor of surgical anatomy and fractures in that institution; (4) that he was *not* delegated by the American Medical Association to the International Medical Congress; (5) that he did *not* read a paper before that body that was kindly received; (6) that he did *not*, the following year, read a "valuable" paper on "Extension in the Treatment of Fractures" before the American Medical Association; (7) that he is *not* best known by his improvement of N. R. Smith's Splint; (8) that he was *not* surgeon for five years in the late war; (9) that the surgical history of the rebellion does *not* speak frequently of him; (10) that he is *fat* rather than "spare;" (11) that his eye is *not* quick, or sharp; (12) that it is *not* a "peculiar dark brown;" (13) that his forehead does *not* denote "thought or reflection;" (14) that his hair is *not* tinging with gray; (15) that he is *not* beyond fifty in his years; (16) that he is *not* of a retiring disposition; (17) that he *would* court office or position; (18) that he *would* use unworthy means to obtain it; (19) that he has *not* a "genial, captivating manner with his friends;" (20) that he has *not* the faculty of calling around him a "corps of devoted adherents;" (21) that he is *not*

marked as a "natural born leader of men;" (22) that he is *not* gifted with reticence; (23) that he is *not* a "skillful surgeon;" (24) that he has *not* "a great amount of mechanical genius;" (25) that as a teacher he is *not* instructive; (26) that he is *not* a "favorite with his class," etc., etc.

Well, if this be the protection of friends, as the *St. Joe Reporter* thinks it is of the fair name of Hodgen, by asserting all these negatives of him, from all such deliver us; "*we don't just like it.*"

On parting, a word of advice to the swaddling *St. Joe Reporter*: Hereafter, please, bear in mind that the editorial code forbids any maligning of its correspondents or sources of information. An editor that stoops so low as to try to debase his source of information only debases himself, and shows the utter irresponsibility of himself.

So far as *Leonard's Illustrated Medical Journal* is concerned, WE alone (nobody else) is responsible for its errors, the ethics of its editorial or correspondent columns, and the character of its advertising pages.

C. HENRI LEONARD, M. D.,

Editor and Proprietor of
Leonard's Illustrated Medical Journal.

Detroit, January 17, 1881.

[THE DETROIT LANCET simply stated the *obvious facts* as given by the journal quoted. Comment was then and is now superfluous. With this publication the matter is ended, in so far as the LANCET is concerned.—ED.]

Reports of Societies.

Michigan State Board of Health.

At the regular quarterly meeting of this Board, held on Tuesday, January 11, 1881, at its office in Lansing, the following members were present: R. C. Kedzie, M. D., President, of Lansing; Hon. LeRoy Parker, of Flint; Rev. D. C. Jacokes, D. D., of Pontiac; John H. Kellogg, M. D., of Battle Creek; and Henry B. Baker, M. D., Secretary.

VENTILATION.

Rev. Dr. Jacokes, committee on ventilation, reported some experiments which showed that through registers of equal size, one at the top and the other at the bottom of the room, the velocity of the upper current of air outward, was greater than at the lower register. When the ventilation was from the bottom only, the temperature of the room was higher than when the ventila-

tion was from both top and bottom registers. These experiments, he claimed, demonstrated that ventilation should be from the bottom in this climate in winter. Dr. Kedzie reported the following experiments which seems to show the same fact. He took a glass tube 30 inches long, having a thermometer in the lower end. When the tube was closed, and the upper end heated to 750° F., the thermometer rose but one degree in an hour; the lower end of the tube being opened and air being drawn from it through the tube, the same heat being applied at the upper end, raised the thermometer below over 100° in one minute.

Dr. Kedzie stated that in conversation with the newly elected governor, he had seemed to appreciate the work done by this Board, and in his message to the Legislature had recommended an additional appropriation of \$2,000 for the uses of the Board.

LAWS DESIGNED TO PREVENT ACCIDENTS.

Mr. Parker, committee on legislation in the interests of public health, reported progress in the careful study of the laws relating to punishment for carelessness causing accidents, such as the falling of the "grand stand" at Adrian, and said in his opinion the laws are stringent enough now, but the sentiment of the people does not hold a man guilty of murder through an act of negligence. There was no law, however, requiring expert inspection of public buildings constructed or in course of construction. Mr. Parker also reported on a proposed system of

INSPECTION OF STEAMBOATS

and other sailing vessels on our many inland lakes and streams, at summer resorts, etc. He had prepared a bill providing for such State inspection, and he was requested to take measures to have the bill presented to the Legislature.

THE WORK OF THE OFFICE.

The secretary's quarterly report of work mentioned the preparations of diagrams, and other labor in preparing and printing the report of the Board for 1880, and similar work on two volumes of vital statistics; the distribution of documents published by the Board, and of blanks for return reports; and preparations for the sanitary conventions to be held under the auspices of the Board. 553 communications have been written during the quarter.

ADULTERATION OF SUGARS.

The secretary reported that he had collected samples of sugars and syrups from the leading dealers in the city, and had received from Prof. S. P. Sharples, of Boston, the result of his analyses, which showed that the sugars were mostly not adulterated, and but two out of ten of the syrups. It is due to the dealers to state that those found to be adulterated, were so sold by them: namely, as "corn sugar" syrups, "glucose" syrups, etc.

DIPHTHERIA.

Dr. Kedzie mentioned a horrible superstition in Russia, under which a wafer is put into the mouth of a child suffering with the disease, and then into the mouth of a well child, with the idea that it is a protection against the disease. As it is a communicable disease, it would be difficult to devise a more certain mode of spreading it.

POISONOUS JELLY.

A sample of apple jelly was sent to the secretary with the statement that eating of the jelly had caused the sickness of a large family. Dr. Kedzie had analyzed it and found three grains of sulphate of zinc to each ounce of the jelly. It was probably in the form of malate of zinc, formed by the action of the acid of the fruit on the galvanized iron vessel in which it was boiled. If this was the fact, it illustrates the danger of using such vessels for such purposes.

YELLOW IN PEACHES.

Dr. Kedzie reported an examination of peaches affected with the yellows. They were of fine appearance, rather red, especially about the pit. The meat was watery, and decomposed rapidly. Chemical analyses showed excess of water, and deficiency of sugar and jelly-forming material. He read letters from some who thought eating the peaches was not injurious to the health, and from others who stated the facts of sickness in repeated instances, after the eating of such peaches.

"HOG CHOLERA."

Dr. Baker made a report, as special committee to study the relations between the prevalence of "hog cholera" and the public health. His report included a statement of his trip to the south-western part of the State, where the disease prevailed, and numerous letters from farmers, physicians, and veterinarians; among the latter Prof. Law, Prof. Klebs, and Drs. Detmers and Salnon.

A letter from Dr. Jerome, of Saginaw, stated that he saw hogs suffering with the disease, who were unable to go up the inclined plane at the slaughter houses in Chicago, were killed and made into lard, and stamped with a fancy brand. In this same connection, Dr. Baker spoke of

LARD WHICH CAUSED SEVERE SICKNESS

in a family in Lansing. A sample of the lard had been microscopically examined by Dr. Detmers, of Chicago, who sent drawings of the organisms he found in it, stating that they were the same as he had found to be the contagious principle in "hog cholera," sometimes called "swine plague." He also read a letter from Dr. Marshall, of Lansing, which said he had examined a sample of the lard in which the "fried-cakes" (eating of which caused the sickness) were cooked, and had found the same organisms to be present. Dr. Baker also read a part of a letter from Prof. Klebs, of Prague, Austria, relating to the same subject. Prof. Klebs has made a special study of such subjects, and claims to have found the organism which is the specific cause of typhoid fever. He does not think hog cholera to be the same as typhoid fever, but would like material with which he could carry on a comparative study.

A vote of thanks was extended to those citizens who had labored so hard to make the

SANITARY CONVENTION AT FLINT

a success. The convention will be held on January 25 and 26, 1881.

Dr. Baker stated that

CONTAGIOUS DISEASES PREVAIL MOST

where it was noticeable that the local authorities paid little or no attention to the laws requiring the appointment of a health officer, and communication with this Board.

The Board adjourned to meet at Flint, January 25, 1881.

Detroit Academy of Medicine.

Meeting of November 23, 1880.

Dr. Walker reported a case of disease of spine in cervical region in which he had applied (in place of the jury-mast) a continuous plaster of Paris dressing around the chest, and extended the same to the head, enclosing it by rollers around the forehead, occiput and chin, rendering the head absolutely immovable. The patient was doing well, had

been entirely free from pain since the application of the bandage.

Dr. Hawes—The support as applied by Dr. Walker will effectually accomplish the purpose, but I think the jury-mast could be made firm enough by making the jacket below very solid.

Dr. Walker—The fault of the jury-mast is not below, but in the spring above, allowing a certain amount of motion, and in the case reported the slightest movement caused intense suffering.

Dr. Connor—How thick do you apply the plaster?

Dr. Walker—I use it the same as when applying the ordinary plaster jacket.

Dr. Connor exhibited an eye that he had removed, and gave the following history of the case: Some seven or eight years ago the patient had an attack of granular conjunctivitis, the treatment of which was undertaken by himself and resulted in the loss of the eye. About two months ago he came to me for treatment for the same trouble affecting the other eye. The cornea was opaque, abraded of its epithelium, and there was a depression at its upper and outer segment. He could not read the largest Snellen's type. The lids were granulated and thickened by infiltration. The orbicularis was also very much thickened. Under the treatment that I have used for some time in this class of cases, the eye has very much improved. The thickening of lids has diminished very much. The cornea has cleared up, and the depression is fast filling up. The eye that I show to the society also showed signs of improvement, and the patient was hopeful of regaining his sight. I did not encourage him in this, but advised its removal, for the following reasons: (1) That he might be relieved from periodic attacks of pain. (2) To prevent sympathetic inflammation in the other eye, and (3) For cosmetic purposes, as the eye was a great disfigurement. He finally consented, and to-day I removed it. About two-thirds of the vitreous humor was liquefied. The cornea was destroyed, as was also the iris and lens, and there is a deposit of lymph throughout the ciliary body. The treatment that I use in all cases of conjunctivitis, whether chronic or acute, is to have the eye bathed for five minutes at a time every two hours, in very hot water, just as hot as can be borne, and after each bathing

a few drops of a saturated solution of sodæ biborat., to be dropped in the eye, and once or twice a day an ointment of hyd. oxid. flav., gr. ss to x, to 3j of cosmoline applied. This treatment causes very little pain or discomfort, and the results from its employment have been very satisfactory. I was led to use the mercury from its known efficacy in corneal affections, and noticing that the eye lids improved when treating cornea with it.

Dr. Hawes—Do you put the ointment into the eye, or on the edges of the eye-lids?

Dr. Connor—I evert the lids and apply the ointment to them. Prof. Seely says he has used the yellow oxide of mercury ointment for several years, and never knew it to fail; his theory of the affection is that it is parasitic, and that the mercury kills the parasite. My theory is that the mercury kills the low form of cell growths that constitute the substance of the new formation; in either case the use of this agent is attended with excellent results, far better than follows the ordinary method of treatment.

Dr. Noyes—I was not aware of its use by Prof. Seely, but having a serious case of granular lids, where there was great danger to the cornea, and having tried without much benefit zinc, tannic acid, etc., I applied to both upper and lower lids an ointment of hyd. oxid. flav., grs. iv to 3i, and was gratified at the results obtained. My only reason for using the remedy was protection of the cornea. I have also had good results from the use of the ointment in blepharitis. Would like to ask Dr. Connor if there was any evidence of cyclitis in his case?

Dr. Connor—I do not remember.

Dr. Noyes—Eyes that are lost by suppuration rarely produce sympathetic trouble or pain in the ciliary body. Removal was undoubtedly the proper treatment in this case.

Dr. Connor also reported the case of a gentleman sent to him for treatment for deafness. Patient lived at Sarnia, Ont., and was a very robust man. While at work putting up the frame to a barn he fell a distance of eighteen feet, and caught between two timbers by the occiput and chin. When extricated he was unconscious and bleeding from both ears. This was followed by deafness in the left ear, with a discharge, thin and watery at first, afterward becoming purulent. On examination I found a scar on posterior wall of bony meatus and membrana

tympani. The middle ear was intact and could be readily inflated. Occupying the scar was a polyp, which I removed by the aural forceps and destroyed its roots by chromic acid. After its removal hearing was restored to half or two-thirds normal. There has been no recurrence of the trouble. The bony wall of the meatus had been fractured on one side (the left) and in its posterior part. The jaw was ankylosed.

Dr. Noyes—What was the trouble with the jaw?

Dr. Connor—Anchylolysis.

Dr. Noyes—Was there any fracture of the anterior wall of the meatus?

Dr. Connor—No.

Dr. Robertson exhibited a patient on whom he had operated, with the galvano-cautery, for chronic nasal catarrh. There was great thickening of mucous covering of inferior turbinated bone. After the treatment patient could breath freely through the nostril.

Dr. Noyes—I was consulted with reference to a little girl, aged six years, who was totally blind as the result of an attack of cerebro-spinal meningitis. She lived in Kansas, and on her way here had consulted a number of medical gentlemen and been told by them that there was no help for her. On examination, found optic disc perfectly white and seeming to spread out with the sclerotic coat; the vessels that pass through the disc were totally obliterated; the circulation in the choroid was very feeble; the sclerotic could be readily seen through the choroid. The child was lively and bright, but her locomotion was imperfect. There was probably some morbid condition at base of the brain; it might be an inter-cranial tumor. I do not think we are able to diagnose tumors in the brain by the ophthalmoscope.

Dr. Connor—I think that all cases of blindness following cerebro-spinal meningitis are incurable.

December 28, 1880.

Dr. Bradley reported having seen one case of cerebro-spinal meningitis.

Dr. Connor—As we are all aware, diphtheria prevails in Brooklyn, N. Y., and I notice that the Mayor has called attention to it in a communication to the Board of Health. A disease must prevail to an alarming extent when the Mayor of a large city

calls special attention to it. In the same connection, I noticed some time since a communication from a gentleman in Minnesota, that diphtheria occurred in his section of country during the prevalence of northeast winds. This would support Wood's theory that genuine diphtheritic membrane can be produced by the action of irritants.

Under the head of

VERBAL COMMUNICATIONS,

Dr. Connor reported a case illustrating the occasional rapid repair of corneal injury. On December 23, he was called to see Mr. E. K., who was reported to have been struck in the left eye by a piece of red hot iron. On reaching the house, some four hours after the injury, he found the patient upon the lounge in an agony of pain. In answer to inquiry the patient said that during the afternoon he had been working in the blacksmith shop of the Pulman Car Works with a man who was unskillful in using the hammer. Their last piece of work was with a piece of red hot iron, some four feet long and two inches by one inch thick. In some manner the end of the red hot iron bar was thrown up towards the patient, striking him in the left eye. Of course the blow and the burn caused immediate pain, etc. On examination the doctor found the left eyelids much swollen; a wound at the inner portion of the upper eyelid. On lifting the upper eyelid, depressing the lower, and causing the patient to look downwards, he saw the upper and outer segment of the cornea as a white rough surface. The cornea was staphalomatous at this portion from a thinning of its wall. As near as the doctor could estimate in the time at his disposal, full two-thirds of the thickness of the cornea had been destroyed over the upper and outer quarter. Besides, there was considerable traumatic injury to the upper and lower lids and considerable destruction from burning. Recognizing a serous lesion to the eye-ball, a guarded prognosis was given. At once the entire conjunctiva was washed with a saturated solution of boracic acid, and then two drops of a ten-grain solution of sulphate of eserine placed on it. The patient now said that he felt easy. The same amount of the eserine solution was ordered to be dropped into the eye every hour, and a soft linen cloth, saturated with an eighteen-grain solution of the boracic acid was ordered to be kept constantly ap-

plied to the eye. Internally, two grains of quinine were prescribed every hour. The directions were faithfully carried out. As to results, the patient suffered from no more severe pain. The swelling of the lids disappeared; its wounds healed very rapidly. The corneal injury speedily underwent repair, so that by the end of seven days the man was able to return to his work with an eye as perfect as before the accident.

Attention is called to this case, 1st, because of the peculiar nature of the injury from such a cause; and, 2d, because of the marked results from the remedial agents employed—the boracic acid and eserine; 3d, because of the speedy repair of the cornea.

Dr. Connor also reported a case of lacerated wound of the conjunctiva. On Nov. 28, a healthy German lad, aged five years, was brought into the doctor's office by his mother, who gave the following history: while at school, the lad had been attacked by a large dog, and bitten in the left eye-lid. On removing the bandage from the eye, the doctor observed the following conditions: The lower lid of the left eye was torn from the middle of the lower canaliculus, through the skin, the fibres of the orbicularis, etc., in a direction downwards and outwards for more than an inch. Its extent may be inferred from the fact that three stitches were required to keep the parts in apposition. The outer half of the upper eye-lid hung as a loose flap down upon the face. At about the junction of the inner with the middle third of the lid, a rent extended through the skin and orbicularis muscle outwards beyond the outer canthus. At about the junction of the middle with the outer third of the lid, there was a vertical rent, dividing not only the aforementioned parts, but also the tarsal cartilages and the conjunctiva. Another rent extended from the outer commissure outwards for an inch. After thoroughly cleansing the parts, the edges of the wounds were brought into apposition and fastened in place by some ten sutures. The whole was then dressed with a saturated solution of boracic acid. Healing took place by first intention, so that in about a week the wounds were entirely repaired.

The points of interest in this case are, (1) the peculiar wound said to have been made in the eye-lid by the teeth of a dog; (2) the rapid healing of such an extensive lacer-

ated wound; (3) the possible relation of this rapid healing to the influence of boracic acid.

Dr. Bradley—I have several times been called to attend molders who had received injuries to the eye from putting a wet skimmer into molten iron, causing particles of hot iron to enter the eye. In one case, I removed from the surface of the cornea a piece of iron one-quarter by three-eighths inch in size. It was held in position by the closed eye-lid. I applied a poultice of scraped raw potatoe, frequently changed; this reduced the inflammation and swelling. No leucoma remained.

Dr. Noyes—Last evening Dr. H. E. Smith came for me to assist him at the Russell House in reducing a dislocation—subclavian—of the left shoulder, of a gentleman who had met with the accident in getting out of the cars at the depot. I found a strong, muscular man, of 45 or 50 years. He informed me he had had each of his shoulders out of joint a number of times in the course of his life; it took but little to produce it. I assayed at first to reduce it without ether, while he was laying on his back, but failed for want of adequate strength. He was now put under ether, and placed upright in a chair, when, with the aid of two strong men, (porters of the house) reduction was accomplished, Dr. Smith assisting. While extension was carried on in the process of reduction, distinct crepitus was felt by us both—it is more on this account than any other that I speak of the case here—yet there was no fracture in the case.

Dr. Walker reported several cases of secondary syphilis, in which there was no history of primary lesion. He did not see the cases, however, until the eruption and sore throat had existed for some weeks. The patients had been treated by different physicians for sore throat. I use in these cases inhalations of hyd. cum creta.

Dr. Noyes—Some years ago I was told by a Jewish Rabbi, that when he had his child circumcised, the doctor who performed the operation put the child's penis in his mouth and sucked the blood from the wound. The child took syphilis and died.

Dr. Walker—I saw a report some time since of a number of cases of syphilis occurring after circumcision, all occurring in the practice of the same doctor, and on inquiring

into the causes it was found that the doctor had mucous patches in his mouth and other evidences of the disease, and had communicated it to his patients.

PREVAILING DISEASES.

Dr. Andrews—I have seen some cases of diphtheria, also some bronchitis, and two cases of continued fever, in children.

Dr. Connor—In the acute stage of catarrh of pharynx or larynx, I have found great benefit from the use of a spray of petrolina oil and oil of eucalyptus. I use a 3 ss. of oil of eucalyptus to $\frac{1}{2}$ i petrolina in an atomizer. Patients do not complain at all of its use. Its effects are most marked in the acute stage.

Dr. Andrews—In the first stages of catarrh I use camphor, carb. ammonia and svapnia. It is almost certain to arrest coryza.

A. E. CARRIEB, M.D.,
Secretary.

The Detroit Lancet.

LEARTUS CONNOR, A. M., M. D., EDITOR.

Existing Evils in the Relations of Physicians and Pharmacists.

THESE, during some years past, have been the topic of much controversy both in Great Britain and America. At times, the contest has been very earnest, not to say bitter. It can scarcely be said that any satisfactory solution has thus far been reached anywhere. The problem is a very complicated one, and involves the substantial agreement of three distinct parties, viz: the medical profession, the pharmaceutical profession and the people. Talk, in this as other matters, is cheap, and we have had a surfeit of it. In one city, Philadelphia, we learn that strong efforts are being made to at least bring the medical and pharmaceutical professions into harmonious relations with one another. From private sources, it seems that both professions are awakened to the imperative call for a real reform. The following appeal, signed by a large number of physicians, will serve to indicate the direction of the movement: "We, the undersigned physicians, being keenly sensible to the fact that the continuous dispensation of patent and proprietary nostrums among the people by pharmacists—and their practice of prescribing for patients over the counter,

and by frequent and indefinite renewals of physicians' prescriptions without being authorized to do so by the prescriber—constitute prevailing forms of pharmaceutical abuses that are gravely prejudicial to the moral and physical welfare of the community, and, instead of constituting the druggist our professional coadjutor, they practically make him the business rival of physicians, and seriously encroach on the legitimate professional rights, prerogatives and prosperity of regular medical practitioners. These practices evidently will tend to react in the breach of our medical and pharmaceutical relations. We therefore, in kind and fraternal spirit, hereby appeal to the pharmacists of Philadelphia to immediately join in candid consideration of a medical and pharmaceutical code of ethics, for our mutual observance and adherence, by which the legitimate province of pharmacy and the professional rights of physicians shall be secured. And we pledge ourselves to throw the entire weight of our professional patronage in favor of such pharmacists as do, in good faith, join us in correcting the existing evils of medical and pharmaceutical relations."

We shall look with interest to the outcome of this appeal, and the discussions on both sides to which it has given rise in Philadelphia. Surely it must be met with responsive sympathy from the best element of the pharmacists. It seems to us a perfectly fair request to be preferred by the medical profession, that those whom they benefit by their patronage should not sell patent proprietary medicines and all sorts of nostrums, much less prescribe them or other medicines. If only a code can be devised which all reputable pharmacists and physicians can join in observing, then we shall have reached a solution of a very troublesome question. More anon.

Medical Certificate Writing.

One can scarcely pick up a medical journal or a popular paper in which proprietary medicines, patent medicines, mineral waters and other nostrums are advertised, without finding the names of one or more medical men appended to the same as endorsing the special virtues claimed for the special article in question. Ofttimes long and fulsome paragraphs attest the writer's faith in the article advertised. It is also noticeable that these

names are not usually from the lower ranks of the profession; the foremost in the land are of the greatest service and most frequently found. What do the writers of these medical certificates say as to their course? The *Medical Record* states that: "The committee on ethics from the New York County Medical Society called the attention of the writers of several medical certificates to the by-law of the Society forbidding the publication of such certificates. To its surprise, the committee was answered by an advocacy of the principle of certificate writing, and by a determination to continue the same, and this from leading members of the profession, from whom we have the right to expect better things. In its reports the committee discuss the subject of newspaper advertising, particularly the fashionable one of personal interviews. The conclusion is that there is no article of the code which cannot be conveniently evaded to suit the purposes of these advertisers. Between the duty of informing the public on medical matters and the wrong of advertising one's self as a practitioner of medicine, there is a wide range of discretion allowed."

We forbear from very shame to make up a list of those who have openly prostituted their professional names and influence for greed of gold. What can be done about it? Clearly, codes of ethics are of little avail.

Memoranda.

The St. Paul Medical College has, its president says, fourteen matriculants this year. Thus it is not as some have reported, still-born. Energy and united efforts on the part of its friends will make it an undoubted success.

Dr. John Stenhouse, F. R. S., the distinguished Scotch chemist and sanitarian, died recently, aged 71 years. He was the author of about one hundred papers specially devoted to sanitary subjects.

It is said that in Philadelphia, from thirty to forty persons die each week from small-pox.

In New York city and Brooklyn the epidemic of diphtheria still continues unabated.

Prof. Victor von Bruns, of Tübingen, has published an interesting lecture entitled "Away with the Spray!" A considerable number of operators are making the same cry. They claim that it is worse than useless, yet they are all Listerites.

The *Chicago Times* says that the town of Morris, Ill., has during the last nine months, had one hundred and fifteen deaths from diphtheria. The population of the place is only 4000. At the first appearance of the epidemic, one half of the cases proved fatal.

Prof. Chevreul, aged ninety-five, has just completed a course of forty lectures on chemistry. Since his father lived to be one hundred and five, the professor may do as well.

The *Medical Times* "believes that public opinion in Pennsylvania has matured sufficiently to render the obtaining of a simple registration act easy, and also that a properly constructed act would be obeyed." A judicious attempt to obtain a law covering the above plan would, it thinks, succeed.

On December 30th, the ice was two inches thick at Jacksonville, Florida. On that day the thermometer, during ten hours, fell 50 degrees, and was as low as 18 degrees.

Another attempt is being made to unite all the medical colleges of Cincinnati into one, which is to constitute the Medical Department of Cincinnati University. It is scarcely likely to succeed.

An English physician has during nine weeks reported seven deaths from chloroform.

Fredet reports a case in which following a fright, a healthy Italian girl lost all the hair on her body. Constant treatment for two weeks failed to restore one hair.

The *Medical Press and Circular* reports the case of a prominent medical man who to procure sleep after exhaustive medical work, took an over dose of opium, from which he died. When will medical men learn the folly of such conduct?

A French chemist is said to have condensed the body of his wife into the space of an ordinary seal, and had her highly polished and set in a ring. He made a nice income by betting with lapidaries and others, that they could not tell the material of the set in three guesses, and after pocketing the money would burst into tears, and say "It is my dear, dear wife. I wear her on my finger to keep alive pleasant remembrance of her."

The *Arkansas Medical Monthly* has been removed from Little Rock, Ark., to Memphis, Tenn. Dr. J. J. Jones still edits and publishes it.

Every intelligent physician should at once subscribe for the *Index Medicus*. The actual cost of its publication is great, but its value to all medical scholars is incalculable, and its relations to rapid professional progress very intimate.

The last report of the Eastern Michigan Asylum says that "ovarian insanity is frequently the result of a repression of the natural feelings and aspirations of the sex. It is often observed in the strong minded who have endeavored to mark out careers irrespective of the limitations of sex and of physical constitution." The same report says "that only twelve per cent. of the inmates of the asylum are known not to have had insane relatives.

Of the alkaloids of cinchona bark we now have eighteen primary and seven secondary distinct active principles.

The title of the journal of the Anatomical and Surgical Society of Brooklyn, N. Y., has been changed to the *Annals of Anatomy and Surgery*. The scope of the journal will be enlarged to meet the scope of the new name. During the past year it has been one of the best of all our exchanges. It was scientific, viz., it told the truth in the plainest possible manner. There was no effort to obtain a cheap notoriety. In its enlarged field we are sure that it will honor medical journalism, as well as greatly benefit its projectors, the students of anatomy and surgery and the profession generally. It costs but two dollars a year, so that everyone should take it.

The *American Medical Bi-weekly* has been revived by its former editor and publisher, Dr. E. S. Gaillard. It is a double-column, twenty-four-page journal, issued bi-weekly from New York City at the nominal price of one dollar a year. We congratulate its talented editor on his recovered health and successful issue of his famous periodicals.

In a description of the provisions for the sanitary and medical care of the laborers of the Lessep's Canal Construction Company, the Boston *Medical and Surgical Journal* says: "There are to be hospitals, ambulances, pharmaceutical laboratories, doctors, midwives, etc. Trees—among others the eucalyptus—and vegetable gardens are to be planted; cattle for slaughtering to be raised; tents and houses to be erected on approved plans, and fire extinguishers to be provided.

Libraries, laboratories for chemical analysis and the manufacture of ice, reservoirs for pure water, fish ponds, appliances for baths, douches, and general hydrotherapy are not to be overlooked. Dr. Paquelin's thermocautery is to be on hand to deal with the bites of serpents. Heifers or mares *ad hoc* are to be procured to furnish animal vaccine matter. The social evil is to be wisely regulated and superintended. Several cremation furnaces are to be afforded for the benefit of such as die in the ordinary course of nature. In every respect the most careful plans are made for the safety of such as labor on this great work.

A training school for nurses was opened November 1 in connection with the Brooklyn (N. Y.) City Hospital. It is on the same plan as the one attached to the Bellevue Hospital, New York. The Superintendent, Miss Pine, is a graduate of the latter school. The Nurses' Home is at 257 Adelphi street. Applications for admission may be made to the superintendent. The officers of the society are: President, Mrs. A. J. Perry, 30 First Place; Vice-President, Mrs. C. L. Mitchell, 129 Montague street; Secretary, Miss D. B. Robinson, 308 Green avenue; Treasurer, Mr. Wm. G. Low, 58 Remsen street; Assistant Treasurer, Mrs. C. T. Pierre, 41 Tompkins Place.

The *Medical and Surgical Reporter* says "that there are exceedingly few physicians who, after they enter practice, continue their profession as anything more than a means to gain money and a social reputation. Had they commenced its study from more elevated motives, they would make these considerations secondary to others, and were such motives more common with students the relations between practitioners would be more harmonious than is generally the case."

On November 9, 1880, Prof. Von Langenbeck celebrated his seventieth birthday. Both the profession and royalty united in honoring the aged veteran.

Dr. Keppler at his sixth ovariectomy found three ovaries with their corresponding fallopian tubes.

The English anatomists were denied protection until the discovery in 1828 that some fifteen murders had been committed by Burke and Hare in Edinburgh, for the single purpose of selling the bodies of their victims.

Mr. Lister has received from the Royal Society the royal medal in recognition of his services to surgery and physiology.

The Philadelphia Academy of Surgery offers a prize of five hundred dollars for the best essay on the surgical pathology and treatment of tumors or morbid growths of the testis, scrotum and spermatic cord, to be open exclusively to American surgeons. (1) The essay must be founded solely upon original investigations, be illustrated by suitable drawings, microscopical and other, and be written in scholarly English. (2) The essay shall be the property of the Academy, which shall, at its option, permit the author to publish it at his own risk or expense. (3) Each essay must be accompanied by a motto and by a sealed letter containing the author's name. (4) The essay must comprise an amount of matter equal to two hundred and fifty pages octavo. (5) The award will be made at the meeting of the Academy in January, 1884, by a committee of the fellows. All essays should be forwarded to the secretary of the committee, at a date not later than October 15, 1883, J. Ewing Mears, 1429 Walnut street, Philadelphia, Pa.

The inaugural message of the Governor of Michigan for 1881 makes the following statement respecting the expenses of the several departments of the State University: "In the literary department there was expended for salaries of instructors and its proportion of current expenses, \$63,515.90. From this deduct \$17,694 for fees collected from students, and it leaves \$45,821.90 as the net expenditure for 448 students, or an average of \$102.28 for each. In the law department the net expenditure for each student was \$4.68; in the department of medicine and surgery, \$30.75; in the school of pharmacy, \$86.34; in the dental college, \$61.59; in the homœopathic medical college, \$117.69. Thus it appears that each student at the University of Michigan costs the State, each year, for simple instructors' fees and incidental expenses, from \$4.68 to \$117.69. Why does not the State make a similar donation to every boy and girl in its domain? Such is the question often put to us, and we find ourselves unable to give answer.

A writer in the *Chemists' Journal* suggests the use of flexible collodion as a means of protecting the hands during post-mortem examinations. The hands are to be dipped

into a vessel containing the liquid. This is repeated several times, allowing time for each film to dry. The collodion is now poured back again into a stoppered bottle. The film does not interfere with touch or freedom of movement. Afterwards the hands can be washed in a little ether to remove the film.

Concerning medical certificate writing, a correspondent of the *Med. Record* makes the following note: "I will state my case briefly. I have a young friend—a rising young man—not in the baking powder, drug or wine business, I am sorry to say; in case he had been, then I would have a precedent to go by. My young friend has invented a trap—a rat trap—a most extraordinary contrivance, sure to catch every time. It retails at fifty cents; wholesale, twenty-five cents. A liberal deduction made to ministers and their families. Although not yet fairly in the market, over one hundred ministers have given certificates as to its wonderful working. My friend lacks capital to fairly put the article before the public; he offered me a partnership, provided I furnished the money. On the matter of business, I believe the code of ethics is very explicit—if it is not, the spirit is, and that is what we are all after just now I understand. The partnership I did not seriously entertain, partly because I have not just now the ready money, and of course on account of the code. It struck me that, my professional reputation being somewhat enviable, I could give character to the trap enterprise by a suitable certificate. I know I could conscientiously write such a certificate and testify to the fact that it is an entirely original invention, that my friend is perfectly trustworthy in everything he says, and that I know the iron of which it is made comes from Sweden and is the purest in the market. Also, that no rat has as yet escaped from its jaws. The only objection to all this is that my motives might be impugned, as he would send the circulars everywhere for the good of householders in general, and our committee on ethics would write me a note. Still, I am proud to believe that the reputation of the profession is safe in my hands, and my position would secure me from petty persecution. But I desire to do what is right, nevertheless. It cannot be said that the trap is 'any patented instrument for medical or surgical use.' Neither is it 'a drug, nostrum, mineral water,

wine or other proprietary article intended to be used as a nostrum or remedy in disease.' Hence, I believe I am beyond the reach of the code, at least, and I wish to think so in the interest of a really useful invention."

Dr. David P. Smith, professor of surgery in the Yale Medical School, died December 26th.

Dr. G. W. Lawrence, of the Hot Springs of Arkansas, says that these springs are death to consumptives. As he is not interested in any cemetery or undertaker's establishment of that place, he advises persons thus afflicted not to go there for relief.

The U. S. Army Medical Museum and Library contains 20,000 specimens, very completely illustrating military surgery and the diseases of armies. The library contains 51,500 volumes and 57,000 pamphlets relating to medicine, surgery and allied topics.

While the classes at Louisville are smaller than in former years, owing to the rise in fees, the receipts from students are much larger. Thus the change has proved successful in a financial point of view. We doubt not that the quality of the classes is also better than under the old low fee system.

It is said that certain English publishers have re-published Blakiston's American Health Primers. They call them "Ward & Locke's Long Life Series." Further, all that could show their American origin has been cut out, and it is announced that the series is "written and edited by distinguished members of the medical profession," while the names of the writers, etc., are omitted.

Walsh's Retrospect, in discussing the meager support of physicians, describes a class of practitioners thus: "There are medical men in each community who seem to hunger after patients; not that they may realize a comfortable and legitimate support; not that they may gratify a proper scientific enthusiasm; not that they may minister to a charitable impulse, but that they may swell their list beyond those of other physicians around them." Such men are dead weights upon any effort to reform.

Some time since a correspondent of the London *Lancet* wrote "that he was assured that at Jefferson College, which is one of the leading schools in the country, a man might take his degree in medicine and go forth to practice his profession, without ever having seen a case." The venerable Professor

Gross, in a very earnest letter, denies the statement, and suggests that the writer's statement can only "be explained on the supposition that he is the very fellow who, by the grace of God, obtained a degree from the college without ever having seen a case; his indolence and indifference not having permitted him to avail himself of the precious pearls that are daily thrown before such swine in the ample amphitheatres of the Philadelphia hospitals."

The Toledo *Medical Journal*, November, 1880, has some truthful remarks respecting jealousy in the medical profession. Thus: "It is difficult to say in which communities this feeling runs more nearly rampant. Our older cities have their college cliques and fraternal combatants; our towns and villages keep up their share of petty bickerings and fratricidal warfare. It would seem that every dung-hill must have its particular cock, whose peculiar business is to strut about with flapping wings and impertinent crowing, warning more unfortunate roosters away." As to the causes for this the writer gives: (1) Overcrowding in the profession, by which two or more try to live upon the field which is incapable of supporting more than one. (2) Professional pride subordinates itself to the trade instinct. Of the advice given by our brother editor we quote: "Beware, brother physician, how, in an evil day, you say to yourself, 'I will arise and go hence; I will seek a place among the brethren of the cities. No more shall my happiness be blighted by the hum of bees or the lowing of kine upon the hills. I will go where I can with the brotherhood and find a place prepared for me, a cordial welcome among my kind.' Let us advise—don't do it; but if you do, how sad will be your disappointment. And if to the crime of being a physician you add the double one of being young, so much the worse for you." The writer admits that there are some noble physicians, but he fears that the majority are of the other metal. The code of ethics may not be openly violated; no word may be spoken that the laws may deem a violation, but the shrugging shoulders, the damning with faint praise, will sting where open enmity fails to injure. Concerning all this, "Pity 'tis true; true, 'tis pitiful." After all, it is about the same in the legal profession and in the ministerial professions. It

stamps the physician as human; *very human*; more human than humane.

It may be a matter of interest, in view of the fact that some legislatures are considering how they shall meet the needs of chronic inebriates, to read the following. It is from the pen of Dr. N. S. Davis, of Chicago, and was published in the *Washingtonian*, Oct. 17, 1877:

"The second class of institutions should be specially adapted to the wants of those we have included in the third group of drinkers—the chronic or persistent inebriates. These should be established and maintained under State or municipal authority; and, in addition to the means of intellectual, moral, social and medical treatment belonging to the first class of institutions named, these should have regular systematic and useful work provided for all the inmates. Admission to these should be through legal process, with legal authority to detain for a certain length of time to admit of thorough renovation and recovery. Our whole system of police management of drunkenness should be changed. Instead of repeated arrests, petty fines, and thirty, sixty or ninety-day sentences to Bridewells or prisons, in direct contact with other criminals, which all past experience has shown only aggravates the evil, the law should provide for having complaints against all of this class lodged with the Judge of the county, or other court of record, and such Judge should be authorized, on the certificate or testimony of two competent and well known physicians, to commit the party to an asylum such as we have indicated, for a term not less than one nor more than five years, unless sooner discharged for good conduct and full recovery, by the superintendent in charge of the institution. Under such a system of management, this class of institutions could be made very nearly or quite self-supporting, and a very large proportion of those brought under their influence permanently restored to health and good citizenship. Such a system would place the legal relations and personal liberty of the confirmed inebriate on the same level with the insane, with institutions specially adapted to effect his reformation, and, at the same time, protect their friends, families, and the whole community from the depredations and crimes, so constantly being committed by the class to which he belongs."

The foregoing well expresses what could and should be done for this wretched class.

The present annual productions of quinine is as follows: America, 63,000 lbs; Germany, 56,250 lbs; Italy, 45,000 lbs; France, 40,000 lbs; England, 27,000 lbs; India, 12,500 lbs.

Editor's Book Table.

The Books Noticed in these Pages are for Sale by THORNDYKE HOUSE, Detroit, Mich.

Wood on the Normal and Morbid Physiology of Fever.*

The work before us is the outcome of a vast amount of experimental labor covering the leisure hours of several years. The views and facts of other workers in the same field are quite fully presented. The whole work is worthy of far more careful study than it is likely to get. Still, students of this part of physiology and pathology will give it a most cordial welcome. The author's own statement of the facts as he has gathered them will be best given in his own language:

1st. In man there is a fixed mean and normal variation of temperature having a regular rhythm, and this variation is beyond the control of all disturbing causes which do not force the organism beyond the condition of health.

2d. The maintenance of the normal temperature and its rhythm is dependent upon the nervous system, which, within certain limits, controls both the production and dissipation of heat.

3d. So far as our present knowledge goes, the chief factor in controlling heat dissipation is the vaso-motor nerves, including, in man, such nerves as control sweat secretion; these nerves being able by contracting the capillaries of the body surface, and by drying the secretion of the skin, to reduce the loss of heat to a minimum, and by a reverse action to increase it to a maximum.

4th. The only nerve center proven to exist capable of influencing the heat production without affecting the general circulation, is situated in the pons or above it, and whilst it may be a muscular vaso-motor center, it is more probably an "inhibitory heat centre," and whichever it may be, it must act through the subordinate centres situated in the spinal cord.

5th. Fever is a nutritive disturbance in which there is an elevation of the bodily temperature, and also an increase of the production of heat by an increase in the chemical movements of the accumulated material of the body; this increase being sometimes

*FEVER: A Study in Morbid and Normal Physiology. By H. C. Wood, A. M., M. D. Philadelphia: J. B. Lippincott & Co. 1880. Cloth, p.p. 258. Illustrated.

sufficient, sometimes insufficient, to compensate for the loss of that heat which is derived directly from the destruction of the surplus food in the body, very little or no food being taken in severe fever. The rise of temperature in fever is, therefore, not dependent altogether upon increased heat production, as in fever there is sometimes less production of heat in the organism than there is at other times when the bodily temperature remains normal; also excessive heat production may occur even at the expense of the accumulated materials of the organism without elevation of bodily temperature.

6th. In fever, a daily temperature variation occurs which is parallel to that seen in health, and differs from the normal variation only in having a higher mean.

7th. In fever, vaso-motor paralysis, when produced, is followed by an immediate fall of temperature, similar to but greater than that which is produced by a like disturbance in health.

8th. The decrease in heat production which follows section of the cord is much greater in the fevered than in the normal animal.

9th. The so called inhibitory heat nervous system is not paralysed in fever, but is less capable than in health of answering promptly and powerfully to suitable stimuli; in other words, it is in a condition of paresis or partial palsy.

10th. The clinical succession and phenomena of a febrile paroxysm, such as that of an intermittent, seem plainly to depend upon the nervous system for their arrangement and relation.

11th. In most cases of fever, and probably all cases of serious, there is a definite poison circulating in the blood, the poison sometimes having been formed in the system, sometimes having entered into the organism from without.

From these facts the author frames the following theory of fever:

"It is simply a state in which a depressing poison or a depressing peripheral irritation acts upon the nervous system which regulates the production and dissipation of animal heat; a system composed of diverse parts so accustomed to act in unison continually in health, that they become, as it were, one system, and suffer in disease together. Owing to its depressed, benumbed state, the

inhibitory centre does not exert its normal influence upon the system, and consequently tissue change goes on at a rate which results in the production of more heat than normal, and an abnormal destruction and elimination of the materials of the tissue. At the same time the vaso-motor and other heat dissipation centres are so benumbed, that they are not called into action by their normal stimulus (elevation of the general bodily temperature) and do not provide for the throwing off the animal heat until it becomes so excessive as to call into action, by its excessive stimulation, even their depressed forces. Finally, in some cases of sudden and excessive fever, as in one form of the so-called cerebral rheumatism, the enormous and almost instantaneous rise of temperature appears to be due to a complete paralysis of the nervous centres presiding over heat production and dissipation."

Thus it appears that the views of the author are much the same as those he has held for years. The facts by which they are maintained are largely increased. Of the practical bearing of these researches we cannot here speak. The volume is issued as No. 357 of the published "Smithsonian Contributions to Knowledge." It is a royal book, and right royally issued.

Buck on the Diagnosis and Treatment of Ear Diseases.*

This work was written in the main for general practitioners. The author tells us that he has mainly followed the plan of using only the material stored up in his own case books, and of describing only those methods of treatment which he has tested and found both safe and efficient. Thus the work is appropriately called "Buck on the Ear." As such, it very well represents the present state of our knowledge of this branch. It differs from the works of Rosa and Burnett, in that it gives far less space to a consideration of the anatomy and physiology of the ear. The space thus gained is devoted to the diagnosis and treatment of ear diseases. Respecting the use of the syringe, the author greatly limits its use. Thus, he says: To the physician who possesses a steady hand and a delicate touch, my advice is to emancipate him-

*THE DIAGNOSIS and Treatment of Ear Diseases. By Albert H. Buck, M. D. New York: William Wood & Co. 1880. Wood's Library of Standard Authors. Sold only by subscription. \$15 for the twelve volumes issued during 1880.

self as soon as possible from the syringe, and to trust chiefly to his probes, curettes, forceps and cotton holders for the removal of foreign substances from the ear. Skill in the manipulation of these instruments may be cultivated to such a degree that the occasions will be comparatively rare when the aid afforded by syringing will be required. At such times, however, the syringe serves an excellent purpose. He does not use the syringe, because he can do the same work as safely and far more pleasantly and neatly by other means. Such has been our own experience for several years. Still, if one does not feel that he has the skill to cleanse the external ear without injury, by the use of probes, etc., of course he should employ the syringe. Nor is there any doubt that for a long time to come the syringe will be the only safe instrument for the general practitioner to use in the cleansing of the external ear. To those who desire to use instruments for the removal of impacted cerumen, the author gives the following directions: "The physician must follow every step of the operation with the eye. He should use as large a speculum as the size of the canal will permit, and the illumination should be good. If the wax is quite soft, a small channel should be cleared with the curette, for a short distance along the upper wall of the canal, in order to afford room for the introduction of the cotton holder armed with a mop of cotton of suitable size. Two or three introductions of the cotton holder, armed each time with a fresh mop, will usually suffice to remove all the cerumen lying between the external orifice and the farther end of the channel made by means of the curette. The remainder of the mass is to be treated in precisely the same way, until the whole of it has been removed from the auditory canal. If the wax is moderately hard, the entire mass may be removed, piece by piece, with the curette. The occasional use of the forceps will also be found advantageous. Personally, we have found the forceps the most useful of all instruments for the removal of impacted cerumen. With Bowman's lachrymal probes and a pair of suitable forceps the plug very speedily disappears, under appropriate manipulation. For those who use the syringe, the fullest directions are given. Lack of space prevents a farther consideration of this work. Most cordially

do we commend it to all interested in the diseases of which it treats.

Landis on the Use of the Forceps.*

The views presented in this volume were first published in the *American Journal of Medical Sciences* for April, 1876. Their more extended elaboration and presentation in a more permanent form will meet the approbation of all the profession. The general subject is in many points far from being perfectly understood. Any new light is gladly welcomed. The work is divided into two parts. The first considers the "Mechanism of Labor," and the second the "Forceps." Under the first we have discussed the anatomy of the pelvis, the propelling forces, the body to be propelled and the mechanism of delivery. The mechanism of delivery is considered in all positions of the vertex and of the face. Part second discusses the blades, curves, handles, and the lock of the instrument. The author prefers the Davis instrument for his own use. Quite fully is discussed the application of the forceps at the inlet, at the outlet and on the after-coming head. Traction, compression, leverage, and when to use the forceps, are all briefly considered. As a sample of the author's views, we quote his general remarks on the application of the forceps. "(1) They should not be introduced during a pain or uterine contraction. The passage of the blade through the cervix will often excite a contraction, which speedily subsides if the manipulation is suspended, after which it may be renewed. (2) The use of anæsthetics is neither necessary nor advisable. The introduction of the forceps is not painful, or, at least, no more so than an ordinary uterine contraction. The sensations of the woman are also an invaluable guide and safeguard during their introduction. If you are causing pain it is probably because you are not passing the blade properly, and the exclamations of the woman will speedily notify you of the fact. When the blades are locked you are in no danger of pinching the maternal tissues if the locking is painless. But if the woman is anæsthetized you are left entirely to your own discretion. Although a careful opera-

*HOW TO USE THE FORCEPS; with an Introductory Account of the Female Pelvis and of the Mechanism of Delivery. By Henry G. Landis, A. M., M. D. Illustrated. New York: E. B. Treat, Publisher, 757 Broadway. 1890. Cloth. Pages, 168. Price, \$1.50.

tor will not do any harm under any circumstances, it is much better to use them upon a thoroughly conscious individual. After they are once applied there is no reason in the operation why an anæsthetic should be withheld. (3) The forceps should never be taken up with the determination to apply and use them "whether or no." The beginner, and, indeed, the more experienced, will occasionally attempt to apply them in an unsuitable case. If, when he finds that a blade does not lock, he loses his self-control, and dripping with perspiration, attempts to force circumstances and the forceps to do his will, he will surely do damage. Force is never needed in their application. If they are passed in the right direction they will find their place in every suitable case. Gentleness and skill are the needed element, and never force. If these fail, let the physician send for some one else, since two heads are better than one. Or if he is remote from assistance, let him suspend his efforts for awhile, meditate upon the cause of failure and try again. (4) If the blades will not lock readily, it is usually the fault of the second blade, which should be taken out and reapplied instead of attempting to force the blades after locking. If after due trial the locking is still impossible, both blades may be taken out and reapplied, while the position of the head should again be carefully made out, since a mistake in diagnosis may have been made, or the position itself may have changed." Numerous diagrams illustrate and enforce the author's views.

Fox's Illustrations of Cutaneous Syphilis.*

Numbers four, five and six of this work lie before us. They pictorially represent syph. pustulosum et papulosum, syph. pustulosum, syph. pustulosum corymbiforme, onychia syphilitica, syph. papulosum humidum, syph. papulo squamosum, hydroa, pemphigus iris, eczema squamosum, syph. squamosum circinatum, syph. tuberculosum ulcerativum, syph. squamosum gyratum, syph. squamosum circinatum, syph. tuberculosum. It is difficult to conceive of any more perfectly natural pictorial representation of these skin phases of syphilis than those before us. If possible,

*PHOTOGRAPHIC ILLUSTRATIONS of Cutaneous Syphilis. By George Henry Fox, A. M., M. D. Nos. 4, 5, 6. New York: E. B. Treat. Price, \$2 per part, the entire work being complete in twelve parts.

the hand shading is more perfect than in former numbers. The letter press is uniformly all that could be desired.

Hall's Manual of Differential Diagnosis.*

While this work was founded on Dr. F. De Havilland Hall's synopsis of the diseases of the larynx, lungs and heart, it was in the first American edition extended so as to embrace all the more frequent and important diseases. The present edition was revised by Dr. F. Woodbury. He has added to it much of interest and value. As in the first edition, the editor has endeavored to collate his material, holding in view: (1) The early and often overlooked signs of the presence of disease. (2) The collection of whatever symptoms are alleged on good authority to be pathognomonic of pathological conditions. (3) Any peculiar features which diseases have been found to present in this country. The peculiarity of this work lies in the tabular comparison of the characteristics of such diseases as are likely to be confounded. Thus, in a moment the practitioner can run his eye over all the symptoms likely to mislead him in making out his diagnosis. By the same assistance, the medical student will be enabled to readily remember the essential features of closely related diseases. The compilation has been performed with good judgment and great care, so that it is wholly reliable in so far as a work of this nature can be. Most cordially do we commend it to all who desire either to master or to review diseases in their diagnostic aspects.

Munde on Minor Surgical Gynecology.†

This work is designed to serve as a supplement to the ordinary treatises on the diseases of women, in that it aims to give such minor technicalities and manipulations commonly employed by experts in this branch, but not given by the text books. While these are most readily learned by practical

*DIFFERENTIAL DIAGNOSIS; a Manual of the Comparative Semelogy of the more important diseases. By F. De Havilland Hall, M. D. Second American edition—extensive additions. Edited by Frank Woodbury, M. D. Philadelphia: D. G. Brinton, 115 South Seventh street. 1881. One volume, 8vo, pp. 223. Price, \$2.

†MINOR SURGICAL GYNÆCOLOGY; A Manual of Uterine Diagnosis and the Lesser Technicalities of Gynecological Practice, for the Use of the Student and General Practitioner. By Paul F. Munde, M. D. With Three Hundred Illustrations. New York: William Wood & Co. Wood's Library of Standard Medical Authors for 1880.

observation at an actual gynecological clinic, this book is designed for such students and practitioners as cannot study at such clinics and yet desire this knowledge. In this way a vast amount of very practical knowledge is placed before the profession. The volume is divided into two parts, the first pertaining to gynecological examinations, and the second to minor gynecological manipulations and applications. After a careful examination of the entire work, we are convinced that for beginners in this study it will prove more helpful than any other on this subject that we have seen. It is these minor details that make up the greatest part of the work of all gynecologists, and all the work of this sort that is done by the ordinary practitioner. Here, perhaps, more than elsewhere, a rapid, safe and complete examination is most to be desired. Such examinations are the least objected to by patients.

Dickinson on Albuminuria.*

This volume introduces the monthly series of publications known as Wood's Library of Standard Medical Authors for 1881. As to the mechanical execution of these series, there has been a steady improvement each year since they began. The paper and press work of this volume is certainly very superior. The wood cuts and chromo lithographs are as good as we have ever seen in a medical book. They are also very numerous; in fact, we do not see how it is possible for the publishers to afford so profuse illustration and such excellent paper in a work that they sell so cheaply, viz., fifteen dollars for twelve volumes of three hundred pages each. It speaks well for the publishers and medical public that the enterprise is so supported as to permit of its continuance. By this method hundreds of thousands of works find their way into libraries that otherwise would be barren of any yearly increase. These series have been selected with great care, and for the great mass of the profession we do not see how they could well be improved. The work before us is a well-known classic on the subject of which it treats. In its present form it probably represents the best thought of the English mind on this important subject. No prac-

titioner of medicine can afford to remain ignorant of its contents.

Transactions of the Pennsylvania State Medical Society.*

This volume contains fifteen papers, the minutes of the meeting and reports from a large number of county societies. The history of obstetrics in Pennsylvania, by Dr. J. T. Carpenter, is of special interest, as many of America's best writers and teachers on this subject did their work in this State. In a paper on some new remedies in the local treatment of skin diseases, Dr. J. V. Shoemaker calls attention to oleic iodoform. This remedy is prepared by dissolving twenty-four grains of iodoform in an ounce of oleic acid. It forms a yellow oily liquid, with a very slight odor of iodoform. He claims as advantages of this combination: (1) It never becomes rancid, like ointments; neither will it evaporate like spirits and ethereal combinations of iodoform. (2) The oleic acid removes very much the disagreeable smell of the iodoform. (3) The oleic acid will not in any way destroy the identity of the iodoform, but will much enhance its value by the combination. Abundant therapeutic experiment has already shown that the local action of iodoform has been to heal and soothe the parts upon which it is applied. The addition of the oleic acid with its active solvent power and its ability to penetrate deeply and rapidly into the animal textures, will render the iodoform far more active and effective in many skin diseases. (4) Of iodoform this is an economical preparation, as a very few drops suffice for its remedial action. It is also remarkable as a cleanly agent, for by its rapid absorption into the tissues it will not stain as most ointments do. From the therapeutic results obtained by the writer it would seem that this remedy was worthy of further trial.

In his address on surgery, Dr. Packard sums up the present aspect of antiseptic dressing as follows: The utmost degree of surgical cleanliness in everything, hands, instruments, liquids applied, and above all, in the wound, is conducive to the best results. Carbolic acid exerts a controlling influence upon the suppurative tendency in wounded tissues. Putrefaction, whether of substances

*A TREATISE ON ALBUMINURIA. By W. Howship Dickinson, M. D. Second Edition. New York: William Wood & Co. 1881. Cloth. Pages 300. Price, \$15 for twelve volumes. Issued monthly. Sold only by subscription.

*TRANSACTIONS of the Medical Society of the State of Pennsylvania at its Thirtieth Annual Session. 1880. Philadelphia. Paper. Pages, 490.

intrinsic to the body, or extrinsic to it, but in contact with it, should be scrupulously avoided by all possible means.

Dr. B. Lee presents several examples of the sad results of defective plumbing occurring in houses of handsome exterior. These facts lead him to think that some better methods should be devised for the protection of the people from bad plumbing and incompetent plumbers. Dr. Lee also tells us how we can get shoes so made that they will not deform and pain the feet. We shall follow his directions and vote him our everlasting thanks if we are as well pleased as he says he is. The volume is on the whole such as we receive from year to year from this society. It should be far better, but it surpasses most State societies.

Potter's Index of Comparative Therapeutics.*

This book aims to present the therapeutics of the regular and homœopathic schools in a manner best adapted to comparative study and quick reference. In parallel columns are placed the remedies recommended by the most eminent teachers in each branch of the profession. The drugs common to both are in black type, and following them, in italics, are the remedies peculiar to each, with short, concise indications for their use. The work is intended as an index to all the great works on therapeutics. It is well adapted for the purposes mentioned and will prove of much assistance to such as desire to study in this manner. It is handsomely published.

Seller's Compendium of Microscopical Technology.†

The works on this subject are numerous. Each meets the wants of a certain class. This work was prepared for those who desire one giving specific directions for such practical manipulations as have already been

*AN INDEX OF COMPARATIVE THERAPEUTICS, with Tables of Differential Diagnosis, a Pronouncing Dose List in the Genitive Case, a List of Medicines Used in Homœopathic Practice, Memoranda Concerning Thermometry, Incompatibility of Medicines, Ethics, Obstetrics, Poisons, Anæsthetics, Fees, Asphyxia, Urinary Examinations, Homœopathic Pharmacology and Nomenclature. By S. O. L. Potter, M. D. Chicago: Duncan Bros. 1880. Pages, 278. Flexible Morocco tucks, \$2.50; cloth, \$2.00.

†COMPENDIUM OF MICROSCOPICAL TECHNOLOGY; a guide to physicians and students in the use of the microscope, and in the preparation of histological and pathological specimens. By Carl Seiler, M. D. Philadelphia: D. G. Brinton, 115 South Seventh St. 1881. Cloth, pp. 180.

approved by a competent worker. Most of the large works give a large number of processes, some tried ones of positive value, others entirely untried, or of no value whatever. The novice, without a practical teacher, has no alternative but to begin and work through the entire series, if he would find the best process. Clearly, this involves a great waste of time and materials. In the book before us, the author gives a clear and short description of processes that he has found satisfactory. Thus, he who follows them may be assured that at least one person has approved of the plan recommended. Of course, having mastered the ones found in this book, the student is prepared to try other plans detailed in larger works. Histological details are not given. As an appendix, the author tabulates a classification of the more common tumors and neoplasms. From a somewhat careful examination we are convinced that this work will be a real help to very many beginners in histological study.

Dennison on High Altitudes.*

The object of this work is dual; 1st, to furnish the physician with certain facts relating to the relations of certain climates to the course of pulmonary disease; 2d, to serve as a guide to the intelligent patient who desires to investigate the relations of climate to his own case. It is well known to the profession that ordinary therapeutic remedies are of little avail in the various forms of pulmonary phthisis. Aside from these the only alternative is climatic change. In successive chapters this work discusses climates of low elevations, of medium altitude and of high altitudes. The greater part of the work is devoted to the climate of high altitudes. His climatic map of the eastern slope of the rocky mountains is very instructive. In order, he describes the mineral springs and other health stations of this slope; he analyzes the attributes of high altitude climates, their humidity, the diathermancy of the air, the ozone and winds, the atmospheric electricity, the physiological effects of high altitudes on the functions of the body, the altitude of approximate immunity from consumption, from asthma, the results of the

*ROCKY MOUNTAIN HEALTH RESORTS; an analytical study of high altitudes in relation to the arrest of chronic pulmonary disease. By Charles Dennison, A. M., M. D. Second edition. Boston, Mass.: Houghton, Mifflin & Co. 1881. Paper, pp. 192.

climatic treatment of consumption in Colorado, pulmonary hemorrhage and other complications, precautionary measures and full directions for camping out. Thus, it will appear that a wide and suggestive field is traversed by the author. That he has done it well, is abundantly proved by the cordial reception of the first edition of this work. Indeed, we have none other to which to go in order to obtain the data here presented. Elsewhere we shall present the main conclusions reached by the author, but all interested in the matter of climate in its relations to health should at once procure the entire volume, and make it a careful study.

Abstracts from Exchanges.

Prepared by Judson Bradley, M. D., Albert B. Lyons, M. D.
and E. A. Chapoton, M. D.

Physiology.

FUNCTIONS OF VISUAL PURPLE.—Dr. W. C. Ayres (*N. Y. Medical Journal*, Dec., 1880.) from a review of the known facts respecting visual purple, concludes: we are most certainly justified in saying that at least one office of visual purple is to enable the eye to accustom itself to circumstance, and by a continual self-adjustment to keep itself fitted to work to the true advantage under all conditions. The visual purple when sensitive to light, would then be a conservative compound, so constituted as to allow a more delicate photo-chemical substance in the cones to produce excitations of the terminal retinal elements; or to keep the cones continually in the proper condition to operate to the best advantage. All eyes in which the purple is a stable pigment, are imperfect, and so far they have only been found in fishes. The result would be the same whether the pigment were situated in the rods or in the epithelium, since in both cases, each cone was surrounded on all sides by a corona of pigment, and its absorption would accomplish the same protection. These eyes are never placed in a varying light, since they are all found in deep-sea fishes, that consequently are subjected to quite modified circumstances of life. The cornea of these fishes is of itself pigmented yellow, and the fact that the curvatures of the inner and outer corneal surfaces are not concentric,

would produce a high degree of astigmatism, and any such delicate arrangement as sensitive purple would be superfluous.

MUSIC—ITS INFLUENCE ON THE CIRCULATION OF THE BLOOD.—It has long been known that music exerted a peculiar influence upon the human body. Lately, Dogiel made a series of experiments on man and animals with the following results: (1) Music exerts an influence on the circulation of the blood in both animals and man. (2) The blood pressure sometimes rises and sometimes falls. These variations in the blood pressure depend essentially on the influence of the excitation of the auditory nerve on the medulla oblongata, which is apparently in direct continuation with the auditory nerve. (3) The action of musical notes and pipes on animals and man expresses itself for the most part by increased frequency of the cardiac contractions, and hence it follows that the automatic centres of the heart act with greater energy. (4) The variations in the circulation, consequent upon musical sounds, coincide with changes in the respiration, though they may also be observed quite independently of the respiration. (5) Strychnia increases the effect produced by a stimulation of the auditory nerves on the circulation, while curara diminishes it. (6) Chloral hydrate, as well as ethyl alcohol and morphia (in a certain stage of the narcosis produced by them) diminish the action of the auditory excitation on the circulation. (7) The variations of the blood pressure are dependent on the pitch and loudness of the sound, and on the tone color. (8) In these variations of the blood pressure, the idiosyncrasies of the individual, whether man or animal, are plainly apparent, and even the nationality, in the case of man, has some effect.

Histology.

THE STRUCTURE OF SYNOVIAL MEMBRANES.—M. Subbotine (*Lond. Med. Record*) sums up a careful study of this subject as follows: (1) On the free surface of the synovial membranes there are generally several layers of epithelial cells, which vary in shape and size. (2) Where the villi are slightly developed and the synovial surface seems smooth, the surface is covered with flattened epithelial cells, but yet thick enough not to be mistaken for

the flat epithelium of serous membranes. These cells are so disposed that they overlap the neighboring cells, like the tiles on the roof of a house; thus, a single layer can simulate two. In the center of each cell is a large nucleus. (3) The villi of the synovial membranes are covered with cylindrical or polyhedral cells, which have quite the character of gland cells, and are similar to those of the mucous membrane of the intestine. (4) The synovia is the product of the cells which line the synovial membrane. (5) The epithelium of the synovial membranes changes quickly; thirty-six hours after death it is completely detached from the surfaces which it covers. (6) Synovial membranes, from their anatomical and physiological character, resemble gland tissue; in fact, the capsular ligament may justly be considered as a closed gland. There is no reason for classing synovial membranes with serous membranes, as many authors do, nor should they be considered as simple septa of connective tissue. (7) The blood vessels on the surface of the synovial membranes are never bare. (8) Synovial membranes never extend to the edge of the articular hyaline cartilage; a band of fibrous cartilage, free from epithelium, separates them from it. (9) Tendons and inter-articular ligaments are not covered by a synovial membrane.

Pathology.

GLYCOSURIA—ITS PATHOLOGY—The London *Lancet* for December, 1880, gives an account of some recent researches by M. Laffont, on the vaso-motor theory of diabetes. The experiments are of great interest. They confirm the view that the glycosuria which results from the stimulation of the central extremities of the pneumogastric nerves in the dog, the depressor nerves in the rabbit, and the sensory nerves generally, is the result of an impression conveyed to the bulbar vaso-dilator center, the path from which is by the cervical cord, the first dorsal nerve roots, and the sympathetic and splanchnic nerves. It is conjectured to be by an action upon this center that certain cardiac and general diseases may cause glycosuria. These effects, and those of the diabetic puncture, are prevented by the separation of the upper dorsal nerve roots, while the effect of stimulation of these divided roots shows that they contain dilator nerves for the vessels of the abdominal viscera.

Toxicology.

DUBOISIA POISONING.—Dr. E. L. Holmes (*Chicago Med. Jour.*, November, 1880) reports the following: A patient at the eye infirmary, during convalescence from a cataract operation, was provided with a small bottle of sulphate of duboisia, gr. i to the ounce. On the 27th of April, about 9 o'clock in the evening, he took by mistake a teaspoonful of the solution. The patient at once informed other patients near him that he had taken the wrong solution, but concluded to await the result before reporting to the nurse. In about ten minutes there was dryness of the throat, and in half an hour a peculiar sensation in legs, then in the thighs, arms and other parts of the body as if they were asleep. At the end of three-quarters of an hour or more the patient could scarcely walk or stand. At this time a nurse was called and an emetic given with the apparent effect of entirely relieving the stomach of its contents. Without delirium the patient rapidly passed into a state of unconsciousness and remained in this condition till about five o'clock in the morning. He complained for two days of muscular weakness in the legs and arms, and especially a peculiar jerking action of the muscles of the arm in extending the hand to grasp a glass or other object. When Dr. Holmes saw the patient at midnight he was lying quietly in a stupor, from which he could not be aroused, but breathing naturally. The face was not specially flushed, although the mouth and tongue were remarkably dry. The temperature was normal. The pulse varied from 108 to 112. The pulse always fell to 80 when the patient sat up in bed. An ounce of brandy was given during the night.

POISONING BY NITRITE OF AMYL.—Dr. G. F. Senter (*Indiana Medical Reporter*) reports the case of a young lady, who by mistake took a dessert-spoonful of nitrite of amyl. A druggist gave an emetic that acted promptly. In twenty-five minutes the doctor saw her. She was ejecting large quantities of fluid from her stomach, which saturated the whole room with an amyl-like odor. Her face was grayish-white, her pupils widely dilated, her eyes glassy and vacantly rolling in their sockets. The mouth was wide open, breathing spasmodic and irregular; a few breaths would be very rapid, and then slow and long drawn; finally, they ceased all

rapidity and became barely perceptible. The pulse was irregular and jerking when first examined; soon, however, it became so slow and feeble that often it could not be detected at the wrist. The patient was "the most limp, limber, relaxed body imaginable." The skin was cold, clammy and suffused with a moist adhesive perspiration, super-saturated with amyl. The treatment was locally—massage and warmth to the head and extremities, alternating with ambulation and flagellation; internally, after free emesis, hot coffee, sometimes with and sometimes without ten drops of tinctura opii.

Practice of Medicine.

THE RELATIONS OF CLIMATE TO CONSUMPTION.—Dr. Charles Dennison, (Health Resorts) gives as the results of a prolonged analysis of the above question, the following conclusions:

1st. In the treatment of ordinary consumption, cool, dry climates very generally give more favorable results than those that are warm and moist; and both coolness and dryness are increased by elevation above the sea. Conversely: As atmospheric humidity promotes an equable temperature, by the capacity moist air has of absorbing the heat of the sun's rays and preventing the radiation of the same when once absorbed, therefore, too much importance has hitherto been given to equable temperature, since it decreases with coldness and dryness and generally pre-supposes a very humid atmosphere or a continuous moist wind.

2d. As the most favorable climatic qualities, the coolness, diathermancy, and dryness of the air, the amount of sunshine and atmospheric electricity, are increasingly found with increasing elevation and distance from the sea, the location of the ideal climate we have been seeking is rendered easy in the Rocky Mountains and foot hills, between the altitudes of four and eight thousand feet. This localization is further favored by the conformation of the country, the perfect drainage, the gradual approach to and the protection of the mountains, the character of the soil, the dryness of the winters, the scanty rainfall coming in health-giving showers during warm weather, the abundance of room and favorable localities, both within and outside the foot hills—altitude and exposure to the sun, rather than latitude, deciding the question of locality.

3d. The *modus operandi* of the curative effects of an atmospheric pressure, less by one-sixth to one-fourth than that at the sea level, seems to be that it acts upon diseased portions of the lungs through the increase of the respiration and the muscular action of the heart, thus promoting hæmotosis and a freer flow of the circulating fluid into and through the affected portion, which approximates a healthy circulation and prevents, or brings to an end, (when already existing) the stasis of blood which accompanies or causes actual disease.

4th. The generally accepted statement, that a change of climate and mode of life is favorable to the cure of pulmonary consumption in proportion to its early adoption, is rendered more positive if the invalid resorts to such high inland plateaus as those found in the Rocky Mountain regions, because the results are more decided.

5th. The stimulating effect of high altitudes, associated with accelerated respirations and more powerful action of the heart, is opposed to the idea of rest, so necessary in the cure of most human ills, but constitutes a most important agent in arresting chronic phthisis.

6th. Generally speaking, tissue change should be stimulated or hastened in consumptives according to their ability to bear it; therefore, the conclusion follows—as experience in Colorado proves that altitude hastens tissue change—the better the resistance of the system to this change, the more, generally speaking, is the elevation indicated.

7th. Though change of occupation and out-door life are very important means of arresting consumption, yet the aid of an atmosphere of lessened pressure is worthy to rank with such hygienic measures as an additional remedy; a statement not hitherto accepted by many.

8th. Lessened barometric pressure—twenty-five to twenty-four inches—being an important condition of successful climatic treatment, a resort to a well chosen elevated climate should constitute part of the physician's advice to every consumptive, who can follow it, for whom the elevation is not specially contra-indicated.

9th. The unfavorable or negative influence of high altitude upon the progress of consumption, is mainly seen in proportion as

the disease approaches or is complicated with the following conditions, which are intensified by an irritable nervous state and lack of desirable will power, aided by the stimulus and hopes of youth, *i. e.*, first, cardiac disease, if associated with increased labor and abnormal activity of the heart; second, the state of softening, in acute cases, and with extensive deposit; third, chronic third stage cases with one-third to one-half of the lung surface involved in diseased changes, if the thermometrical and other usual signs of constitutional disturbance are present in a marked degree, or if the hæmorrhage from a cavity easily occurs, advanced age being generally considered a further unfavorable modifier.

10th. While the great majority of invalids may go immediately to the base of the Rocky Mountains, (5,500 to 6,500 feet) in serious cases the approach to the elevated section should be gradual, according to the disturbance of the circulation, respiration, etc., at lesser elevations; this caution is especially to be observed by those in whom hæmorrhage or acute symptoms exist or are very easily excited.

11th. The favorable or positive influence of high altitude upon the progress of consumption, is best shown in the commencement of chronic inflammatory and hæmorrhagic cases, and generally in fibrous phthisis in young and middle-aged subjects, with little constitutional disturbance.

12th. Generally speaking, the more seriously the respiratory organs, heart, etc., are impaired, the less is the elevation that will produce a given disturbance in them; therefore, the lessened atmospheric pressure, with concomitant climatic variations should be chosen, which is, so far as possible, adapted to the physical condition of the lungs, state of the nervous system, etc., in each individual case; or to approximate a more concise conclusion, the ultimate prescription, so far as elevation is concerned, should be from one to three thousand feet lower than that at which a somewhat prolonged residence would be injurious to the invalid.

13th. While desirable coolness increases the oxygen containing capacity of the atmosphere, altitude has a counter influence and necessitates an active out-door life to insure the best results; or again, the more an invalid feels obliged to remain in confined

apartments, just the more he is deprived of his normal breath in capacity, then the more are extreme elevations unsuitable for him.

14th. A somewhat prolonged residence is essential in the climate in which a certain consumptive finds his disease arrested; and a partial recovery generally necessitates a permanent residence, the return to the locality of the origination of the disease, except temporarily, being generally a dangerous procedure.

UNSETTLED QUESTIONS CONCERNING NASAL CATARRH.—Dr. F. H. Bosworth (*Medical Record*, Nov. 6, 1880,) states these questions as follows; and answers them from his own stand-point: (1) What is nasal catarrh? Nasal catarrh is a chronic inflammation of the mucous membrane, lining that portion of the upper air passages which extends from the nostrils anteriorly to the posterior border of the soft palate. (2) What is the character of the morbid process which constitutes the disease? All forms—except those arising from syphilis—may be embraced under two heads; (a) Hypertrophic catarrh, with excess of secretion and narrowing of the passages, and (b) atrophic catarrh, with its resultant fetid discharges. The hypertrophic form of the disease is the one which presents itself for treatment in the great majority of cases. Is there a catarrhal diathesis? No. What are the tendencies of nasal catarrh? To the production of pharyngitis, of laryngitis, of tracheitis, and of bronchitis. How shall we treat nasal catarrh? The nasal douche has proved a failure. The same may be said of sprays and of powders. The hypertrophied membrane must be destroyed either mechanically or chemically. Of the chemical agents employed, the writer speaks most favorably of acetic acid. In cases that will not yield to this he uses the galvanocautery. Can we cure nasal catarrh? Bosworth says "I do not believe any physician, I care not what his abilities may be, or how much wisdom and skill his experience in the management of these cases may have endowed him with, is justified in promising to cure any given case of nasal catarrh of long standing; and by a cure I mean a complete and permanent removal of all the symptoms." But with our present means of diagnosis and knowledge of therapeutic resources in nasal catarrh, we can permanently remove most of

the features of the disease which render it a present source of discomfort, and all of those that constitute it a source of danger to the more vital portions of the vital tract.

THE HUMAN EYE—ITS MODIFICATIONS IN HEALTH AND DISEASE IN THEIR RELATIONS TO DIAGNOSIS.—Dr. A. L. Ranney (*N. Y. Med. Journal*, Dec. 1880) says, The intimate communications between the fifth, the seventh, and the sympathetic nerves, through the media of the ciliary, optic, and Meckel's ganglia, would lead us to expect that the eye should exhibit, in its altered appearance, the derangement of internal structures. When a glance of this organ is caught, what a field of mute expressions open to the mind! This silent and instructive index of the whole man may be bright or dull, heavy or clear, half shut or unnaturally open, sunken or protruded, fixed or oscillating, straight or distorted, staring or twinkling, fiery or lethargic, anxious or distressed; again it may be watery or dry, of a pale blue, or its white turned to yellow. The pupils may be contracted or dilated widely, insensible to or intolerant to light, oscillating or otherwise, unequal in size, or changed from their natural clearness of outline. The noble arch of the brow speaks its varied language in every face of suffering humanity. It may be overhanging or corrugated, raised or depressed; while the lid of the eye, an important part of the vault, exhibits alternations of puffiness or hollowness, of smoothness or unevenness, of darkness or paleness, of sallowness or brown discoloration, of white or purple. Lines intersect this region, and the varied tints are perpetually giving new color, new feature, new expression by their shadows. If the frontal muscle acts in connection with the corrugator supercillii, an acute deflection upward is given to the inner part of the eyebrow, very different from the general action of the muscle, and decidedly expressive of debilitating pain, or of discontent, according to the prevailing cast of the rest of the countenance. An irregularity of the pupils of the two eyes, indicates as a rule, pressure upon the nerve centres or upon the optic nerve itself. In adynamic fever the eyes are heavy and extremely sluggish, and are, as a rule, partially covered by the drooping eyelid; while in certain forms of mania they are seldom motionless. This latter peculiarity is also noticed in idiocy. In the

paralysis of the facial nerve, the eyelids stand wide open and cannot be voluntarily closed, since the orbicularis palpebrarum muscle is paralyzed. This condition may be further recognized, if unilateral, by the smoothness of the affected side, since the antagonistic muscles tend to draw the face toward the side opposite to the one in which the muscular movement is impaired; by inability to place the mouth in the position of whistling, since for this act the two sides of the face must act in unison; by loss of control of saliva, which dribbles from the corner of the mouth, and a tendency to accumulation of food in the cheek, since the buccinator muscle no longer acts. When the third pair of nerves are affected upon either side, the upper eyelid can not be voluntarily raised, for the levator palpebræ muscle fails to act, and the eye is caused to diverge outward, since the external rectus muscle, not being supplied by the third pair, and having no counterbalancing muscle, draws the eye from its line of parallelism with its fellow. In photophobia, attempts to open the eye create resistance on the part of the patient, since the entrance of light causes pain; while as death approaches or in the state of coma the eyes are usually open. In cardiac hypertrophy an unusual brilliancy of the eye is perceived, since the arterial system is overfilled from the additional power of the heart. A peculiar glistening stare exists during the course of scarlet fever, which is in marked contrast with the liquid, tender and watery eye of measles. Many diseases of the eye itself tend to greatly alter the normal expression of the face. Prominently among these may be mentioned cataract, glaucoma, cancer, staphylocoma, exophthalmos, iritis, conjunctivitis, amaurosis, etc. The pupils are found dilated during attacks of dyspnoea and after excessive muscular exertion, in the latter stages of anæsthesia, and in cases of poisoning from belladonna and other drugs of similar character. A contracted state of the pupils exists during alcoholic excitement, in the early stages of anæsthesia from chloroform and in poisoning by morphia and other preparations of opium, physostigmia, chloral and some other drugs. Growths within the orbit tend to create a displacement of the eye forward, and thus cause an apparent increase in the size of that organ. A similar condition may also result from abscesses of the antrum.

ARTIFICIAL RESPIRATION IN NEW-BORN CHILDREN—AN EXPERIMENTAL INQUIRY AS TO THE AMOUNT OF VENTILATION SECURED BY DIFFERENT METHODS.—Dr. F. H. Champneys (*British Medical Journal*, November 27, 1880) gives the results of experiments on twenty-six bodies which had never breathed. Tracheotomy having been performed, a canula was tied in the trachea, the canula being connected by India rubber tube with a V tube filled with water, which thus registered inspiration and expiration by the rise and fall of water, the results of the same body only being compared and the highest effect being the standard of comparison. The methods used were nine, viz., those of Marshall Hall, Howard, Sylvester, Pacini, Bain, Schucking, Schuller, Schroeder and Schultze. The conclusions were: (1) Since the position of equilibrium of a still-born child's chest is one of absolute expiration, airlessness or collapse, no method which depends on elastic recoil of the chest walls will introduce air into its lungs. The methods of Marshall Hall and Howard are useless as means of directly ventilating the lungs of still-born children. (2) Sylvester's method and its modifications by Pacini and Bain introduce more air into the lungs than any other method. (3) In using Sylvester's method the arms should be held above the elbows and everted. (4) In using Pacini's method, or Bain's, the legs should be fixed; the second half of Pacini's method and Bain's second method should not be employed, as the weight of a new-born child's body is an insufficient counterpoise to the necessary traction. (5) In using these two latter methods, the operator may face the subject and lift the shoulders from below; by this means he is able to watch the child's countenance and is able to introduce an equal quantity of air. (6) Schucking's method is no improvement on Sylvester's. (7) Schuller's method is useless and not free from risk. (8) Schroeder's method is useless. (9) Schultze's method, although its power of ventilation is less than that of Sylvester and its modifications, yet acts efficiently. (10) In Schultze's method the diaphragm does descend, though but slightly; its principal action, however, is on the thoracic walls, as in the Sylvester group. (11) In Schultze's method it is important that the whole weight should rest (at the end of the

inspiratory movement) on the index fingers in the axillæ, and should not be distributed to the other fingers. (12) The violence of the method of Schultze is not in its favor. (13) Opisthotonos always produces expiration by tension of the anterior body walls, and should be avoided.

TREATMENT OF ENTERIC FEVER.—Dr. J. H. Bristowe (*Brit. Med. Jour.*, Nov. 27th, 1880) sums up a discussion of this subject by stating the method by which he would like to be treated, should he be attacked with this disease. "I should like to be placed in a cool, well ventilated room, and covered lightly with bed clothes; to have a skillful and attentive nurse to look after me; to be fed solely with cold milk unless vomiting should demand the addition to the milk of medicine calculated to allay vomiting. If diarrhœa became troublesome, or ever there was much pain or tenderness in the cæcal rings and in the bowels, I should like to be treated not with laxatives, but with opium, given either by the mouth or by the rectum. If constipation were present, I should, excepting the first week, like to have enemata employed for its relief. In the event of intestinal hæmorrhage coming on, I should like to have ice to suck or ice cold fluids to drink, cold compresses to the body, and cold injections into the bowels; and though I am skeptical as to their efficacy, should choose to have astringents, and more especially lead, given me at short intervals. If perforation should take place, let me have large and repeated doses of opium. Stimulants I should prefer to be without early in the disease; later however, and during convalescence, I should like to have them in moderation. As to the cold baths, I would prefer not to have them; but I would, nevertheless, leave it to my physician to exercise his discretion in the matter, I would leave it also to him to decide, according to circumstances, whether alcohol should be administered to me in large quantities; I would prefer not to be treated at a temperance hospital."

Action of Remedies.

ANTAGONISM OF ATROPIA AND PHYSOSTIGMIA.—Dr. R. Bartholow (*Med. Record*, Dec. 4th, 1880,) reaches the following conclusions on this subject: (1) Physostigmia, or eserine, and atropia are antagonistic in their action on the pupil. (2) They are different, but

probably not antagonistic, in their action on the heart. (3) They are opposed in their effect upon the respiratory functions, eserine paralyzing and atropia stimulating it. (4) They are not opposed in their action on the cerebrum. Atropia produces delirium and hallucination, while eserine does not affect the cerebral functions; but both cause more or less carbonic acid narcosis. (5) They act differently, but not antagonistically, on the spinal cord and nerves, both cause paralysis; but while atropia impairs the irritability of the motor nerves, eserine does not. Eserine increases the irritability of the sensory nerves; while atropia, if it has any effect at all upon them, diminishes this. (6) They are antagonistic in their action on secretion, eserine stimulating it and atropia arresting it. Thus it appears that atropia overcomes the lethal effects of eserine, by stimulating the respiratory functions; but it is doubtful whether eserine is of any practical service in poisoning by atropia.

ANTAGONISM OF BELLADONNA AND PILOCARPINE.—(1) Belladonna and pilocarpine are antagonistic in their action on the secretions, especially of saliva and sweat, pilocarpine stimulating these enormously and belladonna arresting them. (2) They are antagonistic in their action on the heart and the arterial system, pilocarpine slowing and weakening the heart and lowering the vascular tonus, and belladonna strengthening and accelerating the movements of the heart and increasing the arterial tension. (3) They are antagonistic in their action on the eye, pilocarpine producing contraction of the pupil, spasm of the accommodation and recession of the near point of vision, and belladonna dilating the pupil, paralyzing the accommodation and inducing presbyopia. (4) As regards the brain, there is no real antagonism between the two. The excitement, delirium and hallucinations caused by atropia remain unaffected by pilocarpine, while the soporose condition induced by the latter is due merely to exhaustion and cerebral anæmia, and not to any primary effect on the brain. Children are alike unsusceptible to both belladonna and pilocarpine.

Nervous Diseases.

MYELITIS ANTERIOR—ITS SYMPTOMS.—These are well stated by Dr. E. C. Seguin (*Annals Med. Surg. Society*): (1) Paralysis.

In some few cases this appears with almost apoplectic rapidity; in the majority of cases the paralytic phenomena are complete in one or two days. Often we learn from the mother of a child who has myelitis anterior (infantile spinal paralysis), that she put the child to bed well, or simply a little feverish, and the next morning both legs, or one extremity, or all the limbs were limp and paralyzed. In a minority of cases (adults) the muscular groups in the limbs lose power slowly, and a week or several weeks elapse before the patient is obliged to lie abed. It is important to contrast this paralytic loss of power, affecting a whole limb or a muscular group, with the atrophic failure of power, or the fascicular atrophy described under the head of 'progressive muscular atrophy.' (2) Atrophy of muscles. The palsied muscles in myelitis anterior always undergo, in the course of the first four or five weeks, marked and even extreme atrophy. This wasting, even in the most sub-acute forms of myelitis anterior, is rapid as compared with that in the most rapid forms of progressive muscular atrophy. Besides, in the former disease, the atrophy like paralysis, always affects a whole muscle, or a muscular group, or the muscular apparatus of one or more limbs en masse, and is not, as in the latter affection, fascicular in distribution. Fibrillary contractions in wasting muscles are common in progressive muscular atrophy, and very rare in myelitis anterior. (3) Remarkably distinct evidences of the degeneration reaction to electricity, are obtained from the second to the tenth week. The nerve trunks supplying the paralyzed muscular groups, lose their excitability to faradism and galvanism, and these wasting muscles react only to galvanism, and their reaction formula is altered from the normal; all contractions are slow and wave like. (4) The distribution of the paralysis is important for diagnosis and prognosis. In myelitis anterior the bladder and rectum are never paralyzed, and it is exceedingly rare to observe paralysis of the respiratory muscles, and of those which serve for deglutition. On the other hand, muscles supplied by the cranial nerves may be paralyzed. (5) An important symptom is the abolition of reflexes in the paralyzed parts, especially the tendon reflexes. (6) Sensory symptoms are very slightly developed in myelitis anterior. In some cases a degree of numbness or other paræsthesia is experi-

enced in the paralyzed limb for a few hours or days. In others, severe neural pains are experienced. Although the suffering in some few cases of myelitis anterior may be very severe, yet it is only careless observers who could mistake these pains for those of locomotor ataxia; anæsthesia is never present in myelitis anterior. When it is present in any degree, the case should be designated diffused central myelitis. (7) Fever is present in a majority of cases in children and adults. Other peculiar symptoms are vomiting, œdema of the extremities, hyperæsthesia of the affected parts, delirium. These rare symptoms occur in the first stage of the disease. In the atropic stage the patient's general health is usually good.

Surgery.

THORACENTESIS IN EMPYEMA.—Dr. C. A. Leale (*Med. S. Record*), gives the following as the results of his experience in thoracentesis. (1) He prefers the scalpel to open the chest, as it is a safer procedure, the operator knowing exactly what is being cut. (2) An incised wound is known to heal, if required, with greater certainty. (3) By using a long male silver catheter, the most dependent part of the chest can be emptied of its fluid contents, and there is no danger of pricking the lung from change of position or movement of the patient while the liquid is being withdrawn. (4) When pus has commenced to undergo change preparatory to absorption, the probability is little that any will be produced after the operation if the wound is immediately closed. (5) In closing the wound, under the above circumstances, the little atmospheric air admitted, and the small quantity of pus left, are very soon absorbed. (6) If pus again accumulates in the chest, the operation is so easy, the pain so slight, and the closure so rapidly accomplished, that a repetition is nothing to be feared and really causes less prostration than when a large incision is made; and possibly pus formed with less rapidity. (7) Atmospheric air, pus, and blood even to the extent of about eight ounces may be absorbed, and the injured, compressed lung can again resume its normal condition, as so conclusively proven by post mortem examinations. (8) When unhealthy decomposition has commenced, the wounds ought to be left open and the parts carefully disinfected. (9) Thoracentesis should oftener be performed for the quick removal of fluid

from the chest, even as recorded during far advanced phthisis pulmonalis, when relief may be obtained, life prolonged and painful death averted. The resection of the ribs during the operation of thoracentesis has now been resorted to quite frequently during the past six years, without adding to the safety of the patient and in many instances procrastinating a recovery and in others apparently causing death.

WOUND OF BRACHIAL ARTERY TREATED BY MARTIN'S ELASTIC BANDAGE.—Dr. W. W. Dawson, of Cincinnati, (*Cincinnati Lancet and Clinic*, October 23, 1880) recently treated a wound of the brachial artery a third of an inch in length, by an application of the elastic bandage—Martin's—to the arm, putting it on sufficiently close to lessen the supply of blood in the arm. The bandage was removed every other day and readjusted, the artery being compressed above the cut meantime. At the end of five days the repair of the artery seemed to be complete, and at the end of three weeks there remained no doubt of the complete obliteration of the cut in the artery. Prof. Dawson also treated an enlargement of the glands of the neck by the same kind of elastic compression, putting a cotton compress over the point to which the pressure was to be applied, and passing the elastic bandage around the enlarged glands and around the chin. Bandage worn as long as could be borne each day. Glands greatly reduced in size.

EXCISION OF CANCER OF THE RECTUM—A STUDY OF ONE HUNDRED AND FORTY CASES.—Dr. C. B. Kelsey (*N. Y. Med. Journal*, December, 1880,) from a study of one hundred and forty cases of excision of cancer of the rectum, concludes: (1) The fatal results which have thus far been recorded as following this operation nearly all occurred in cases where, from the extent of the disease, such a result was not improbable. (2) When the disease reaches above three inches, or involves neighboring parts to such an extent as to render its entire removal without injury to the peritoneum questionable, the operation is contra-indicated. (3) Although there have been a few cases of cure, such a result is so rare as not to justify the exposure of the patient to the risk of immediate death which attends the attempt to remove extensive cancerous disease. (4) The operation is chiefly valuable as a palliative measure, and as such

it is applicable to cases where the disease has not made extensive progress. (5) As a palliative measure, in proper cases, it compares favorably with the results of lumbar colotomy, both in prolonging life and in relieving pain. (6) The operation is not followed by an annoying incontinence of feces, except in a small proportion of cases. (7) The operation is not a substitute for lumbar colotomy, in cases where the disease has reached more than three inches from the anus. (8) There is no proof that the operative interference shortens life by hastening the progress of the disease.

Obstetrics.

HYDROPS AMNII AND REMARKABLE SHORT FUNIS.—Thomas A. Rodger, M. D. (*Canada Medical and Surgical Journal*, November, 1880,) reports a case which had the uterus distended with amniotic fluid to the extent of thirty or forty pints, which, when discharged, brought on labor; but though there appeared to be plenty of room in the pelvis, the fœtus failed to come down until the cord was ruptured, when it came away. The cord was found to be only two inches in length; placenta adherent, and, to some extent, fibroid.

A FŒTUS CHANGED TO ADIPOCERE.—A writer in the Cincinnati *Lancet and Clinic* describes the following as one of the interesting cases of Billroth's clinic. It was a case of the removal of the fruit of an extra-uterine pregnancy, which had been converted into perfect adipocere, while still retaining quite distinctly the outline of every part and feature. The woman two years before the operation had presented symptoms which had induced the physicians in charge to diagnose an extra-uterine pregnancy. She finally presented herself at the surgical clinic for the removal of the tumor, as the sense of weight, pain and disturbances of digestion from which she suffered had made her life a burden, and further, she had had repeated attacks of peritonitis. As she persisted in her demand in spite of the dangers of the operation, it was done with a confirmation of the diagnosis made two years previously. The adhesions of the sac containing the degenerated fœtus to the surrounding viscera were very extensive and a number of ligatures had to be applied; the hemorrhage was slight and the sac removed in toto. It was

composed of dense fibrous tissue, doubtless the result of an inflammation, and upon its inner surface were an abundance of cholesterol crystals, with a thin coating of the same yellowish, fatty material into which the fœtus had become converted. Of the fœtus itself, the soft parts had all undergone this change, and many of the bones, particularly at their epiphysis were similarly affected. The woman did well and fully recovered from the operation. Judging from its size, the fœtus had reached full term before its death and subsequent degeneration.

EARLY PREGNANCY.—A. G. Springsteen, M. D. (*American Medical Journal*, October 1880), relates the following: A German lady called with a thirteen year old daughter to know why the girl was growing so stout. Girl had never menstruated, but acknowledged having had too much intimacy with a young musician stopping in the house. The irate mother threw the fellow out of the house; but he married the girl and in due time the girl gave birth to a female child of eight pounds weight *without a pain* of parturition, without the contraction of a single muscle, apparently, and in the happiest mood of an unsuspecting school girl. In less than five minutes after taking the bed the affair was over. The mother was exactly thirteen years and two months old when she gave birth to the child, and could have been only twelve years and seven months old when she conceived. The infant was perfect in all respects, and healthy. The mother was on her feet two days and a half after confinement attending to the household duties.

REST AFTER DELIVERY.—Dr. H. J. Carriqnes (*Amer. Journal Obstetrics*, October, 1880,) makes an extended study of this disputed question, and reaches the following results: Anatomy and physiology teach us that the puerperal uterus is large, flabby, anteverted and antelected; that all the surrounding parts destined to support it are distended, soft and yielding; that its interior presents large wounds, bathed in a fluid rich in disintegrated tissue elements; that the placental site is pervaded with large, venous sinuses filled with recently formed clots; that at least the vaginal orifice, and often other parts of the obstetric canal, present open wounds; that the processes of regeneration, of transformation and absorption re

quire at least two months, and that retrogression is most active during the second week. His practical conclusion is "that the upright and sitting posture ought to be carefully avoided until involution has proceeded so far that the uterus has receded from the anterior wall of the abdomen and returned to the pelvic cavity. In order to ascertain this he daily examines the position of the fundus uteri as compared with the symphysis pubis. When he finds that it has subsided behind the symphysis he thinks that it finds sufficient support in the true pelvis. This process in different women requires different periods. He has seen it occur in five days, but in most of his cases it took two weeks.

SECOND STAGE OF NATURAL LABOR—ITS MANAGEMENT.—Dr. W. T. Lusk (*New York Medical Journal*, December, 1880) from an interesting paper draws the following conclusions: (1) The cord should not be tied until the child has breathed vigorously a few times. When there is no occasion for haste arising out of the condition of the mother, it is safer to wait until the pulsations of the cord have ceased altogether. (2) Late ligation is not dangerous to the child. From the excess of blood contained in the foetal portion of the placenta, the child receives into its system only the amount requisite to supply the needs created by the opening up of the pulmonary circulation. (3) Until further observations, the practice of employing uterine expression previous to tying the cord is questionable. (4) In children born pale and anæmic, suffering at birth from syncope, late ligation furnishes an invaluable means of restoring the equilibrium of the foetal circulation.

THE CAUSATION OF ALBUMINURIA IN PREGNANCY, ITS FACTORS IN RELATION TO ECLAMPSIA.—These are well given by Dr. A. L. Galabin, (*British Medical Journal*, Oct. 30th, 1880). He thinks that in any individual case two or more of these factors may operate together to produce the same result:

1. Increased venous tension in the kidneys may result from the pressure upon the renal veins by the pregnant uterus, when this has passed beyond a certain size. This will favor the mechanical transudation of albumen; and moreover an organ suffering from venous congestion is more liable to become inflamed from slight causes of irritation, and recovers less easily than when the circulation is nor-

mal. The fact, however, that tumors of a similar size do not so readily produce albuminuria, and that albuminuria is apt to occur in the earlier months of pregnancy, shows this cause to be insufficient by itself.

2. Arterial tension is increased throughout the body during pregnancy, and the heart becomes hypertrophied. This also would tend towards mechanical transudations of albumen and even according to some observers, to actual effusions in the kidney, constituting interstitial nephritis.

3. The renal circulation is subject to great temporary changes, owing to the rythmical contractions of the uterus, which occur at intervals throughout pregnancy, and are intensified in labor. During a contraction of the uterus, the flow of blood through it is greatly limited; and the tension of the renal arteries, which arise from the aorta not far from the uterine arteries, is abruptly raised. At the same time, a large quantity of venous blood is squeezed out of the uterus, and thus the arterial and venous tension in the vessels of the kidney are at the same moment elevated. This effect will be greatly enhanced during the powerful contractions of labor; and it is by this circumstance that we must largely explain the very great increase of the proportion of cases of albuminuria during labor over that in the ninth month of pregnancy. In some cases] of this kind the albuminuria has been found to be present only in the first urine drawn by catheter after delivery, and not to recur again.

4. The kidney, as it is closely connected with the genital apparatus in development is so also in its nervous relations. Thus tumors connected with the kidney have sometimes been observed to swell during menstrual periods. The same fact is illustrated by the rapid and copious secretion of urine under certain conditions in hysterical women. Hence it is probable that the development of the uterus during pregnancy tends to promote, by a reflex influence, active hyperæmia in the kidneys. And physiological hyperæmia, while innocuous in a perfectly healthy organ, is apt to pass into or promote inflammation, when any morbid condition or source of irritation is present, as is well illustrated by the physiologically active fluxion of menstruation or of sexual emotion in the case of the uterus. It is conceivable even that morbid condition of the pregnant uterus may lead to reflex irritation or congestion of the kidneys.

5. Although the mechanical effect of pressure cannot be regarded as sufficient to altogether account for the albuminuria of pregnancy, yet it is a very important element as is proved by the markedly greater frequency of albuminuria in primipara than in multipara and also in the younger than the older, both amongst primipara and multipara. This can only be explained as due to the greater rigidity of the abdominal walls in primipara, and in young women, and consequently greater pressure upon the viscera. But pressure upon the renal veins is not the only thing to be considered. There is another mode in which pressure comes in play, viz. pressure upon the ureters, as is exercised by the pregnant uterus even in the earlier months of pregnancy. It is known to pathologists that in the case of fibroids of the uterus, some dilatation of the pelves of the kidneys, and flattening of the apices of the pyramids, may be found. The more temporary enlargement of the uterus in pregnancy is not likely to leave such a manifest anatomical change. But the secreting cells of the kidney must necessarily do their work against a greater pressure, and therefore with greater difficulty, and so be more liable to functional disturbances or irritation.

6. Probably the most important factor is the increased amount of work thrown upon the kidneys during pregnancy. They have to excrete the waste products not only of the mother, but of the fœtus, in which tissue changes are far more active than in adult structures. It is not alone the urea and uric acid which have to be considered, but other excrementitious materials, whose chemical nature is not precisely known, and which may have a more irritating effect even in minute quantities. It may reasonably be expected that while healthy organs will do this increased work without suffering, yet kidneys that are congenitally a weak point in the constitution, or have undergone any degeneration, especially when at the same time they are subjected to other disturbances as to their vascular supply, are liable to give way even under slight additional strain and become inflamed. Hence the especial importance of this element of causation, because it leads not merely to functional or mechanical transudation of albumen, but to actual nephritis, and even to the chronic form of Bright's disease.

The causation of eclampsia is in every case compound, the different factors being present in different proportions. In any given case of great importance is the increased irritability of the nerve centres which occurs physiologically, in order to fit them for carrying on the reflex mechanism of labor. Thus in the pregnant woman, a poison in the blood more readily excites a convulsion, just as, in a child, a convulsion is apt to occur at the onset of a zymotic disease. When the Bright's disease is chronic, a certain tolerance is acquired, as in the latter stages of the zymotic disease, and the eclampsia is not so likely to occur. Then we have the effects of reflex irritation. The importance of this is shown by the large proportion of cases of eclampsia which commence during actual labor, and by the fact that the convulsions are often synchronous with the pains of actual labor, and may be excited by digital examinations. Thirdly, in the great majority of cases, there is the presence of a poison in the blood, probably secondary in the main, other impairments of kidney function usually resulting from a very early stage of nephritis.

RELATIVE VALUE OF THE DIFFERENT OPERATIONS FOR DELIVERY IN NARROW PELVIS.—Aug. F. Erich, M. D. (*Maryland Med. Journal*, October 1 and 15, 1880,) has a paper on the above subject, and gives a history of eighteen cases. After the historical part of his paper he says the practitioner, called to a case of dystocia due to a narrow pelvis, is required to make prompt choice between, first, the long forceps; secondly, the podalic version; thirdly, craniotomy; fourthly, laparo-elytrotomy; fifthly, gastro-hysterotomy or its modification by Parro, gastro-hysterectomy. The discussion of the first two—the long forceps and podalic version—has been conducted with more bitterness than that of all the others combined. Next to the late Sir James Y. Simpson, who lent the great weight of his authority to the preference of podalic version to the long forceps, the championship of this operation—version—seems to belong to Prof. Goodell, of Philadelphia. Dr. Alexander Milne, of Edinburgh, is another advocate of podalic version, but the author of the paper intimates that such a man, who will champion podalic version in preference to forceps in all cases of narrow pelvis, does not know how the forceps should be applied. The author, in con-

junction with such authorities as Byford, of Chicago; Mathews Duncan, of London; Depaul, of Paris; Ellwood Wilson, of Philadelphia; McClintock, of Dublin, oppose version and favor head first delivery in contracted pelvis.

Version should only be attempted in cases of flat pelvis, after the forceps have failed, before resort to craniotomy. Turning, according to Churchill, Leishman, Cazeaux and Barnes, as well as other authorities, is not justifiable in cases where the pelvis is less than three inches in diameter. All of Dr. Erich's cases of craniotomy ended in recovery of the mother. Consequently, he argues that craniotomy is not such a dangerous operation as it has been thought to be. It is more safe than the Thomas operation, which should not be thought of in uncomplicated cases of craniotomy; but where craniotomy is especially dangerous, then laparo-elytrotomy may be resorted to. Consequently, the only cases where Parro's operation should be resorted to are those of rupture of the uterus, with escape of the fœtus into the abdominal cavity, and cases of extensive carcinoma of the cervix uteri. Parro's operation, meeting all the indications for and being less dangerous than the gastro-hysterotomy, promises to supplant the latter operation entirely. Artificial induction of premature labor has been strongly urged in some places, especially in Germany, but as the people are now constituted, but few will consent to it.

The doctor draws the following conclusions from his experience and research in reference to the different methods of delivery in narrow pelvis:

(1) The propriety of induction of premature labor is still questionable.

(2) That version, while it should never be the alternative of the forceps, should be tried in contracted flat pelvis before resorting to craniotomy, but is worse than useless in uniformly contracted pelvis where the forceps have failed

(3) The forceps, when properly applied and used, are the safest means of delivery for both mother and child. After failure with them, craniotomy is indicated, except in cases of narrow, flat pelvis where version should first be attempted.

(4) Where there is not room enough for the application of the forceps, and where the smallest diameter of the pelvis is less than

two inches, laparo-elytrotomy is indicated. Owing to the faultiness of the methods in use for measuring the pelvis, it will be well to give the child the benefit of the doubt and try to apply the forceps whenever the diameter of the pelvis shall seem to be somewhat above two inches.

(5) In case of rupture of the uterus, where the child has escaped into the abdominal cavity, and in cases of extensive carcinoma of the cervix, Parro's operation (gastro-hysterectomy) should be performed in the interest of the child.

(6) The unmodified Cæsarian section (gastro-hysterotomy) has been superseded by Parro's operation, which meets all the indications, with less danger to the mother.

THE THIRD STAGE OF ABORTION.—ITS MANAGEMENT, WITH RETENTION OF PLACENTA AND MEMBRANES.—Theophilus Parvin, M.D., (*Obstetric Gazette*, July, 1880) in criticising and, to some extent, endorsing Dr. J. T. Johnson's paper, read at the meeting of the American Medical Association, proceeds to find fault with the idea that in every case of miscarriage we should forcibly dilate the os uteri and remove the ovum. The doctor says that long ago he read somewhere that the three great remedies for abortion were rest, time and laudanum. An experience of twenty-eight years only confirms the truth and importance of this early impression, although the rule should not be followed too explicitly. We may trust many cases to nature entirely. In some cases we can assist nature by tamponing the vagina, and still better by tamponing the os uteri, thus causing the very flow for which the tampon is inserted, to rupture the remaining placental adhesions and thus facilitate the expulsion of the ovum. This, of course, if the miscarriage is inevitable. But if the hemorrhage has been going on some time and the tampon fails to dislodge the ovum, then it will be better to empty the uterus at once. But how shall this be done? Not by blunt hook or crotchet, unless such instrument can be guided in its use by the finger throughout. Dr. Fleetwood Churchill well said that "the finger is the best ovum forceps." But suppose a case of incomplete abortion having hemorrhage, which, by its persistence, promises danger to the patient; or by decomposition threatens septicæmia; then interference is imperative and must be immediate. In such a case let

the patient be brought to the edge of a hard bed and a Neugenbauer's speculum introduced. Bring the os fairly into view, catch the anterior lip of the uterus with a simple tenaculum, or better still, with Nott's tenaculum forceps; then, if there is any flexion, use gentle traction to straighten the uterine canal. Now take a pair of curved polypus forceps, or better still, Emmet's curette forceps, gently introduce the closed blades into the uterine cavity, open slightly, close and withdraw. The fragments of membranes may be removed and the instrument introduced again, and the same manœuvre repeated again and again until the membranes and placental fragments have been removed. Then, by means of an applicator wrapped with cotton wool, swab out twice or oftener with Churchill's tincture of iodine—one of the best of local uterine hæmostatics, if not the best of antiseptics. Finally, let the patient have ten or fifteen grains of quinia and it will be very rarely that convalescence is not prompt and perfect.

RUNGE ON THE MANAGEMENT OF THE THIRD STAGE OF LABOR.—Dr. Max Runge (*Med. Times and Gazette*) objects to the practice of immediately after the birth of the child seizing the uterus by the hand on the abdomen and pressing the placenta out. The objection is that the squeezing out of the placenta is begun before that organ becomes completely contracted. Hence, when the placenta is expelled, often a bit of membrane remains behind, attached to the uterus. While this practice was carried out it was quite a common thing for a pair of forceps to be needed to remove these pieces of retained membrane, and secondary post-partum hæmorrhage became extraordinarily frequent. According to Dr. Runge, the separation of the placenta and membranes is not completed until on an average of about a quarter of an hour after the birth of the child, and therefore about this time should be allowed to elapse before the placenta is pressed out. Since instructions based on this principle have been given to the students and midwives of the Strasburg Obstetric Clinique, post-partum hæmorrhage has become of very infrequent occurrence.

INCEPTION AND DURATION OF MENSTRUATION.—Dr. Bensenger (*London Medical Record*) found from a series of five thousand six hundred and eleven women, in Moscow

and the surrounding province, that the first menstruation, on the average, began at the age of fourteen years eight months and fifteen days. Among the upper classes, it generally appeared earlier than among the lower classes. This, he thinks, results partly from their more favorable hygienic condition, and partly from their superior intellectual activity. Menstruation ended between the forty-third and forty-eighth years. The average number of years during which menstruation persisted was thirty-two.

A CHILD BORN WITH SMALL-POX — THE MOTHER NOT BEING AFFECTED.—Vidal (*London Med. Record*) reports the following: The child was conceived about the end of November, 1870. The father was attacked with confluent small-pox shortly afterwards. The fœtus was born covered with small-pox pustules, although the mother, who had been vaccinated, had not shown any symptoms of the disease and had never had it. The pustules at the birth of the child appeared to have reached the seventh day of development; they were not larger than usual, but so perfectly umbilicated that they could not be taken for pemphigus or any disease but variola. The child died at the end of a few hours.

ALCOHOL IN PUERPERAL FEVER.—Dr. Whittaker (*Obstet. Gazette*) says that alcohol is the food of fever, which is in essence too rapid oxidation. It was long ago noticed that it was almost impossible to develop the tonic effects of alcohol in individuals suffering from fever. He quotes a recent report of Reiss, showing that in man, as in the lower animals, alcohol in large doses diminishes the excretion of urea, common salt, the phosphates and sulphates, that is, it markedly checks the waste of tissue which in fever is excessive. He also quotes the experiment of Binz, who produced septic fever in two young, healthy dogs by the subcutaneous injection of ichorous pus. One was left to his fate and the other treated with alcohol, which was introduced in three doses of two drachms each of absolute alcohol, diluted with water, into an empty stomach by means of an œsophageal tube. The dog left to his fate was found dead on the second day, while the dog treated with alcohol experienced a marked reduction of temperature with each dose, and entirely recovered.

Gynecology.

TREATMENT OF METRORRHAGIA AND MENORRHAGIA.—Dr. R. Tausky (*American Jour. Med. Sciences*, Jan., 1881,) gives us a study of ninety-eight cases of alarming uterine hæmorrhage in menstruating women. From this he concludes: In the treatment of menorrhagia, metrorrhagia, or chronic pelvic congestions and hyperæmic conditions, rest with pelvis elevated, is of the highest importance. Hot water injections and scarifications of the cervix and endometrium, I have found beneficial. Salicylate of soda, quinia, digitalis in large doses and opium, for the relief of pain and where a nerve sedative is indicated, are invaluable means of arresting uterine hæmorrhage. Ergot in large doses, given before, during or after menstruation, every hour until the hæmorrhage if profuse, ceases, is one of our most valuable aids in arresting it. The use of intra-vaginal balls of the astringents, alum, tannin, tinct. of iron and glycerine, introduced every hour if the hæmorrhage be alarming, or better still, the careful intra-uterine application down to the fundus, of tannin and glycerine on a probe, or of Monsell's solution of the sub-sulphate of iron half diluted with water, have in my hands, checked uterine hæmorrhages that have resisted treatment for months. I have never seen any ill effects follow the intra-uterine application of iron in a large number of obstinate metrorrhagias in my own practice. Cauterizations in catarrhal endometritis five or six days after menstruation has ceased, repeated once a week, effected in my hands the contraction of the enlarged womb and its blood vessels, curing the catarrh. Intra-uterine injections or applications should never be employed where there is an obstruction or a contraction of the internal os or any part of the cervical or uterine canal and cavity. In sub-mucous and intramural fibroids, the daily injection of ergotine hypodermically, has frequently checked long continued uterine hæmorrhages. In cases of carcinoma or rodent ulcer, fungosities, polypi, granulations, the curette and the application of Monsell's solution of iron have arrested uterine hæmorrhages. Often I apply the pure powder of the sub-sulphate of iron to the cervix, or a concentrated solution of alum if the bleeding take place from the eroded cervix. Compression of the abdominal aorta has also

proved a valuable means of arresting excessive uterine hæmorrhage where all other means had failed, and the patients were almost moribund when I first saw them.

Ophthalmology.

TREATMENT OF GONORRHOËAL OPHTHALMIA IN CHILDREN.—Dr. C. Bader (*Brit. Med. Journal*, Nov. 13, 1880,) says that after a somewhat extended trial, he has found the oxide of mercury ointment a most valuable means for treating gonorrhœal ophthalmia. He applies to the entire surface of the conjunctiva an ointment of one grain of red oxide of mercury, one fifth of a grain of sulphate of atropia, and of one drachm of vaseline. When applying the ointment, the patient should lie down, and if restless take an anæsthetic. The eye is first well cleaned of all discharge by tepid water, then with a large, soft camel's hair brush, the ointment is freely pushed beneath the upper, and then the lower lids, so as to touch the entire conjunctival surface. As long as the eye-lids are swollen, this operation is repeated at nine, twelve and four o'clock. When the eye-lids opened freely, one application daily sufficed until the discharge ceased. If only one eye is affected, the other eye must be protected. The treatment must be applied by the medical man himself. Experience showed that a few days treatment sufficed, if adopted at the onset of the disease.

IMPAIRMENT OF VISION FROM THE ABUSE OF ALCOHOL AND TOBACCO.—Dr. D. Webster (*Medical Record*, Dec. 11, 1880,) gives a record of twenty cases, in each of which it seemed clear that alcohol or tobacco, or both, were the direct cause of the impaired vision. From a study of these cases, he concludes: (1) Amblyopia from poisoning by alcohol alone, or by alcohol and tobacco combined, is not uncommon. (2) Amblyopia from poisoning by alcohol alone, does occur, but in this country somewhat rarely. (3) Cases of amblyopia from abuse of tobacco and alcohol, will usually improve, perhaps to a limited extent, on a simple abstinence from the poisons causing the disease. (4) They will improve much more rapidly under treatment by hypodermic injections of strychnia, this drug having a specific stimulating influence upon the nervous portion of the visual apparatus.

HOW SHALL WE OPEN A SWOLLEN LACHRYMAL SAC.—Dr. C. R. Agnew, of New York, answers the above inquiry as follows: The anatomy of the parts is about as follows: we have the eyelids covering the eyeballs, and towards their inner angle we have the puncta. Now, behind this angle, which is called the internal canthus, is the little gland called the caruncle, and just in the crease between the caruncle and the angle of the eyelids there is nothing between the external world and the cavity of the sac but conjunctiva and sac wall. As the sac fills up with matter, its anterior wall is brought forward, the tendon of Horner's muscle is more or less stretched, and the sac bulges below and above it and is made prominent. Now standing behind a patient who has such a lachrymal abscess, which you are not able to enter through the puncta, you may take Beer's knife, and holding the head firmly, poise the blade of the instrument flatwise, so as almost to be in contact with the cornea, pass it behind the internal canthus behind the angle where the lids come together, carrying the point inwards and enter the sac, reaching it by making a slight wound. This wound usually heals readily, does not interfere with the canaliculi, and if it becomes fistulous does no possible harm, because it is inside of the lids, and the sac empties itself inside instead of outside upon the cheek. Having emptied the sac it may be treated according to the indications.

IMPROVED OPERATION FOR A NEW PUPIL AFTER CATARACT OPERATIONS.—Dr. Loring (*N. Y. Med. Journal*, November, 1880,) suggests a new method of making an artificial pupil in cases in which the pupillary space has become closed after cataract operation, by inflammatory processes. Briefly, the method consists in the transverse division of the iris and all underlying membranes. He uses an extremely narrow knife with a very delicate cutting edge, although a Graefe's cataract knife may be employed. The eye is fixed in the ordinary method, opposite the site of puncture. The knife is then entered, not in the clear cornea, but at the sclero-corneal junction, or just within the scleral ring and at the middle and outer circumference if the cut is to be horizontal, and the lower border if vertical, as it usually is. The puncture is made precisely as in the operation for cataract. If the anterior chamber is deep

enough, and a narrow knife is used, this is entered with the edge downward, the blade of the knife being perpendicular to the plane of the iris. The knife is then carried completely across the anterior chamber, precisely as if a counter puncture were to be made until the point arrives at the peripheral portion of the major circle of the iris. The section is performed by suddenly depressing the point of the knife with a bold, free movement of the hand, until the handle of the knife, from being horizontal, assumes a vertical position. Nor should the operator be content with this movement alone, but supplement it while the point of the knife is still deep in the vitreous, with a gentle, sawing movement while the knife is being withdrawn. In this way the fibres of the iris are thoroughly divided through its entire diameter, even up to the ligamentum pectinatum. Of course the cut must not be carried so far as to involve the ciliary muscle. As the first result of this operation, the surgeon usually finds the tissue give way before his knife, to be followed by a rent of jet black appearance. Should this not occur, he may feel pretty sure that the operation is not going to be successful, which is probably due to the fact that his incision has not been bold and free enough, or carried sufficiently towards the periphery at the finish. As hæmorrhage usually at once fills the pupillary space, the real benefits of the operation will not be apparent until it has been absorbed.

SPASMODIC SQUINT WITH HYSTERICAL BLINDNESS.—Dr. W. Manz (*Brit. Med. Journal*) describes the following case: A nervous young lady of weak constitution, was suddenly attacked, while the subject of headache, with convergent strabismus, especially of the right eye. At the same time a high degree of amblyopia set in along with concentric narrowing of the field of vision and spasm of accommodation. Ophthalmoscope examination revealed nothing beyond a doubtful anomaly of formation. At the end of eight weeks the patient had already recovered from this condition. During its continuance clonic convulsions occurred several times. Shortly after the dismissal of the patient a relapse occurred in which besides the former symptoms there was transient anæsthesia of the first and second divisions of the fifth nerve. This relapse occurred at the end of three weeks,

and after a few days was followed by a third, which lasted four weeks and left slight impairment of visual acuity with asthenopic troubles.

HOMATROPINE HYDROBROMATE AS A MYDRIATIC. Dr. S. D. Risley (*Amer. Jour. Med. Sciences*, Jan., 1881) concludes a further study of the above named drug. This study justifies him in drawing the following conclusions: (1) Homatropine hydrobromate in solutions of two, four, and six grains to the ounce is competent to paralyze the accommodation. (2) In from sixteen to thirty hours, this paralysis entirely disappears. (3) Dilatation accompanies the paralysis and is more persistent, the probable duration being forty-eight hours. (4) It is no more liable to produce conjunctival irritation than atropia or duboisia. (5) It produces far less constitutional disturbance than either of the old mydriatics.

AMAUROSIS FROM LESIONS OF THE ORBITAL REGION.—Dr. J. S. Fernandez (*Amer. Jour. Med. Sciences*, January, 1881) from an interesting paper draws the following conclusions: (1) Amaurosis following wounds of the eyebrow is generally the result of cerebral lesions, as proved by the fact that the greater number of cases lose consciousness or die soon after the accident. (2) Although modern ophthalmological literature does not contain a single instance followed up from beginning to end by ophthalmoscopic examinations, two of my cases and Galezowski's observations go to show that amaurosis is due to atrophy of the papilla, and this to a cerebral lesion of more or less severity or to injury of the optic nerve in its passage through the optic foramen. (3) Those cases where the amaurosis is attributed to sympathetic action or excitability of the fifth pair of nerves, from whatever cause, occurred previous to the employment of the ophthalmoscope and were open to erroneous interpretations. (4) The amaurosis occasioned by simple irritation of the supra-orbital nerve, from punctures, cicatricial distension, or any other cause, might at the present time be doubted in the absence of a complete clinical record to support it; but inasmuch as sympathetic amaurosis from excitability of the maxillary branch of the fifth has been observed, the possibility of a similar result as regards the supra-orbital, one of the three principal branches of the trigeminus cannot consistently be denied. (5) The entire iden-

tity between amaurosis from irritation of the superior maxillary and supra-orbital nerves once conceded, the prognosis must be considered equally favorable in either case, for amaurosis from wounds of the eyebrow, resulting in atrophy of the papilla, is incurable. (6) The experiments on dogs, inflicting divers traumatic lesions on the supra-orbital region, have not been followed by amaurosis.

CHOROIDITIS FOLLOWING RELAPSING FEVER.—Dr. J. Trompetter (*British Medical Journal*) reports that in three hundred and twenty-five cases of relapsing fever in Breslau, twenty-one cases of choroiditis were observed. When brought to the hospital well marked characters of choroiditis were seen in most of the cases. Often hypopion appeared in the absence of inflammatory phenomena on the iris. The vitreous was turbid in all cases, and the acuteness of vision was always much impaired at the beginning of the illness. The periphery of the field of vision was limited in all directions. The average duration of the choroiditis was from a month to six weeks. Its course on the whole was favorable. The doctor believes that the affections of the eye in relapsing fever are due to embolism arising from partial necrosis and abscess of the spleen.

Otology.

FRACTURES OF THE TEMPORAL BONE.—Dr. A. H. Buck (*Medical Record*, October 16, 1880) makes an interesting statement of our knowledge of the above subject. Fractures of the temporal bone can be divided into: (1) Fracture or diastasis of the tympanic or squamous portion in the region of the middle ear, without implication of the petrous portion. (2) Fracture of both the tympanic and the petrous portion. In one or two of the fourteen cases observed the symptoms seemed to justify a third division, namely, fracture of the petrous portion of the temporal bone without implication of the middle ear. The first class might be broken up into smaller subdivisions: (a) Cases in which no visible hemorrhage or other discharge took place from the ear. (b) Cases in which hemorrhage or bloody discharge from the ear followed the accident. (c) Cases in which the accident was followed by spitting of blood, due to its escape from the middle ear by way of the Eustachian tube and into the naso-pharyngeal cavity or

nasal passages. The cases belonging to the second class were, as a rule, of a more serious character than those belonging to the first grand subdivision. The severity and the duration of the illness which immediately followed the accident were usually so great that the aurist never saw such cases until after the characteristic lesions in the region of the drum-head had disappeared. The line or lines of fracture might run in a variety of directions, and might involve other organs beside that of the ear proper, and from the symptoms produced we might also locate more or less the course pursued by the fracture. When in a case of injury to the head there is complete loss of hearing shortly after the accident, it is safe to assume that a fracture has taken place through the labyrinth, or that an extravasation of blood has taken place in the cochlea without fracture. As to the symptom of bleeding from the ear, Duck thinks that when a fall or a blow upon the head is followed by bleeding from the ear, no matter how trivial, we may diagnose a fracture of the temporal bone in the neighborhood of Shrapnell's membrane, and probably in the line of the glasserian fissure, but the symptom of visible bleeding from the ears is not a necessary accompaniment of fracture of the temporal bone. On the other hand, evidence of inflammation of the part surrounding the drum-head affords excellent evidence of such a fracture.

MENIERE'S DISEASE.—Dr. A. Guye (*Archives Ophthalmology*, October, 1880,) states: (1) Meniere's disease, or the symptoms of Meniere's disease, include in the most general use of the term all those cases in which a sensation of vertigo is caused by abnormal irritation of the terminal apparatus of the semi-circular canals. (2) In a narrower sense, we must include under Meniere's disease those cases of inflammatory processes in the semi-circular canals themselves, or in the middle ear, producing vertigo, which is either continuous or caused by normal movements of the head, or appearing only paroxysmally after intervals of weeks or months. (3) Most if not all the cases of Meniere's disease are of secondary nature, *i. e.*, they are due to inflammatory processes in the tympanum or antrum mastoideum. (4) In typical cases, the vertigo is preceded or accompanied by sensations of rotation in regular progressive steps; first, we have a sensation of rotation about a vertical axis, and constantly toward

the affected side, oftentimes to and fro, but never simply toward the affected side; this is followed by a sensation of rotation about a transverse axis, backward and forward; the vertigo then generally becomes complete and the patient swoons, with or without loss of consciousness and vomiting. The attack in some cases usually passes off in from two to thirty minutes; in others, the sensitiveness to every movement lasts one or two days, during which the patient must rest in bed. (5) Sensations of rotation are sometimes produced by external therapeutic applications to a diseased ear, such as forcing air into the tympanum, in some cases of acute inflammation of the tympanum, syringing water into the antrum mastoideum after perforation of the mastoid process, when the water escapes either through the external auditory meatus or the eustachian tube. In such cases, the sensation of rotation is constant around the vertical axis toward the affected side. (6) The seizures are often accompanied by intense sensations of hearing, which in many cases continue permanently in a moderate degree, and without exacerbations during the seizures; in rarer cases, subjective sensations of hearing are wholly absent. (7) In long standing cases, a slight feeling of vertigo persists, even between the attacks, and is noticed, especially on first moving the head after awakening from sleep. Or there may be a feeling as if one were falling forward or backward, or a forced and stiff position of the head, because every movement in the plane corresponding to a given semi-circular canal makes one feel as if a piece of lead were moving simultaneously in the same direction. In one very pronounced case of my own, the head was held forward and to the left, corresponding precisely to the plane of the left sagittal canal. (8) Conditions simulating chorea in children, and clonic contractions of the muscles of the face and upper extremities in adults, to say nothing of frequent complications with hysteria, may develop themselves in the course of the disease and disappear wholly after local treatment of the ear affection. (9) The affection can be relieved with or without loss of hearing. (10) Local treatment is most successful in cases that are not too old, and often in the most hopeless cases. (11) Amongst internal remedies, quinia deserves most reliance, in so far as it often lengthens the interval of freedom from attacks during the course of its exhibition. Quinia, moreover, often acts paradoxically in chronic affections of the ear, by wholly removing the previous tinitus, while increasing the deafness temporarily during the course of its exhibition.

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Original Communications.

Venereal Diseases—A Clinical Lecture.

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YOU will remember, gentlemen, we had a patient here last week who, it had been supposed, had a symptom that was due to some trouble of the bladder, of the prostate or to a stricture, and he had been treated accordingly. His chief difficulty was irritation at the neck of the bladder, which caused frequent urination, and I spoke at the time of the different causes of frequent urination. He was examined for enlarged prostate, and was found not to have any enlargement of the prostate; it was of normal size. He was then examined for stone in the bladder, but no stone was found in the bladder. You will remember he was examined both while lying down and while standing up. He was examined for stricture, but he was found not to have any in the ordinary sense of the term. The urethra was clear to No. 37, from a point several inches back, involving the whole of the pendulous urethra and down to the bulbo-membranous junction, and yet when we came too near the orifice, a contraction was found. The urethra was contracted at that point to No. 24. In the absence of other cause for the irritation of the bladder, I told you this might be looked upon as sufficient cause for the frequent urination. As the patient expressed a willingness to undergo an operation, I hoped you would have a chance to witness it; but he wanted to go back to the country as soon as possible, hence I operated upon him last Friday. I divided the tissues at the orifice as far as the contraction required, to about three-quarters of an inch from the opening. I then passed a No. 37 or 38 sound through into the bladder. Now we will ask the

patient what has been the result of the operation? "I have been able to go four hours without a desire to urinate." But, gentlemen, there are other times when he passes water more frequently, and for the last day or two the frequency has increased considerably. Now, you will remember that when he came to us he complained of having to pass water about five times during the night and once every hour when standing up or walking about, or, as he says, as often as he could get to a water closet. Now, this frequent desire to pass water has been partly removed by division of the obstructed orifice. The effect was quite marked, and it generally is in such cases, and yet for a day or two past the frequency has been greater. He says he has passed water about once in every two hours since twelve o'clock last night. Now, when we find that patients are relieved in this way by operations, and that subsequently the trouble begins to return, we expect to find some added source of irritation at the point. For some reason, the point at the site of the operation has become irritated, perhaps by the introduction of instruments, and perhaps by another cause which I will mention presently. The frequent introduction of instruments sometimes gets up inflammation at this point. In order to keep up the results of the operation, that is, to prevent the tissues from healing, which they tend readily to do, it is necessary to pass the instrument regularly, at least as often as every other day, and this is a point to bear in mind in all cases; otherwise, you lose the benefit of the operation to a very great degree. Now, in this case there has not been a great deal of irritation from the passage of instruments, and on seeing the patient to-day I was a little surprised to hear him say that his frequency of urination had returned in some extent. On examining the penis, however, I found a cause for it, and it is not

a very common one. I want to call your attention especially to it, that is, a little diphtheritic deposit which has made its appearance on the lips of the wound. This occurs in a certain number of cases, and why I do not know. It seems to be a pellicle very much like diphtheritic membrane which, when it occurs, is always a source of irritation in these cases, which irritation is reflected to the bladder. We have this here without the appearance of any diphtheritic action anywhere else. If you will step down here you will see exactly what I mean. That is the cause, not only of irritation, but it makes the parts very slow to heal. Not infrequently it becomes necessary to withhold the use of instruments for a time. That is not an ulceration at all. There is no discharge, simply an exudation of this membrane upon the surface of the wound. Sometimes it is quite sensitive to the touch, and makes the introduction of an instrument painful. An instrument of full size here would be likely to cause irritation. My usual plan is, when this occurs, to probe the wound down as far as I can without producing any pain, and let that take the place of any further instrumentation. As an application, I have found pepsin and bismuth to be the best; they seem to digest off membrane, or at least under their use the membrane disappears in a few days, and healing goes on, and in the course of three or four days we usually find the parts assuming a healthy appearance, and after that healing goes on rapidly. There is apt, however, to be some contraction which will require a subsequent operation. I have found, in some cases, no contraction; in others, so much as to necessitate a repetition of the operation. I have never found the second operation fail to give as good results as the first. I am glad to be able to show you this case, because of its rarity and because of its having resisted all ordinary treatment. The first case of the kind which I had was a good many years ago, and I treated it at first with caustics, and subsequently with various measures, but the trouble continued for ten or twelve days, until finally I practically let it alone and it began to get better, applications of almost all kinds seeming to have aggravated it. But I have found that a very bland application of equal parts of powdered pepsine and bismuth has answered the best purpose in these cases.

I recall a case just now where the intervals between micturition were only half an hour, and this had continued several weeks. An abnormal frequency had existed during years. On dividing the meatus, and doing nothing else for the patient, the function of micturition ceased entirely, and the patient was not able to void his water voluntarily for three days. I withdrew it for him with a catheter. After that he was able to void his urine voluntarily, and from that time on the intervals were four and five hours. Such are excellent results, and yet they are not uncommon. Could we always obtain as good results in surgery, we might well be satisfied. That contraction at the orifice of the urethra may produce the symptoms we have been considering should never be forgotten, when we meet with cases of irritation of the genito-urinary apparatus.

CASE II.—We had, last week, one or two cases of seminal weakness, but not, as far as we could learn, of true spermatorrhœa, the term spermatorrhœa being applied to those cases where the seminal fluid comes away without the volition of the patient, or rather without sensation. It simply flows out and goes backward into the bladder, mingling with the urine. Here is a patient who has complained of trouble, and his urine has been examined and has been found to contain spermatozoa. This fact, in connection with the history, puts the case down as one of true spermatorrhœa.

We will take the history of the case and see how much we can learn of the origin of his trouble. How long has it been since you have had any trouble with your genital apparatus? "About eight years." Were you in the habit of masturbating early? "Yes, sir, I began when about 15 or 16 years of age." How often? "Quite often, several times a day." For how long a time did you continue this? "Three or four years." Gentlemen, we usually find in cases of seminal weakness there has been the habit of masturbation, and we are perfectly safe in assuming that sexual excess has existed either in the way of masturbation or coition where-ever debility of the sexual apparatus exists. How old are you now? "Twenty-eight." How long did you continue the habit? "Until I was eighteen." Why did you quit it? "I was getting weak." How did this weakness affect you? "I had constipated

bowels." Did you have any other trouble? "Sometimes pain in the back." How long ago did you begin to have some other trouble? "About eight years." What began then? "A continual dropping when I would go to the water-closet." It is common, gentlemen, in such cases for seminal fluid to be pressed out of the seminal ducts during the act of defecation, especially if there be constipation. But it must not be supposed that all fluid looking like semen coming away under such circumstances is really semen. In fact, the majority of patients who come to us supposing they are passing seminal fluid, are not passing semen at all; it is only a secretion of the prostate. The fluid should in all cases be examined under the microscope, and if the spermatozoid be not present, we must conclude the fluid comes from the prostate.

Then it has been eight years that you have been losing your semen, and yet you have had no other trouble than constipated bowels, and once in a while a pain in the back. Have you your usual sexual vigor? "No, sir." When did you notice a decline in it? "About six years ago." That was about two years after this flow commenced. Then what did you notice, were your erections imperfect? "Yes, sir, could not get up an erection when attempting to have connection; have not had an erection for about six years." What have you done for it? "Nothing." It is quite rare to find a case of this kind where there is no complaint of more or less nervous debility. He is evidently in good physical condition. We might well expect in long continued trouble of this kind that the patient would be depressed in spirits, and nervous. Have you any hesitation about going into a crowd? "No, sir, I like to be in a crowd, and like to go into the society of females." Now, this is utterly opposed to what usually exists. It is supposed that persons who suffer from spermatorrhœa are fond of secreting themselves, that they are very unhappy when brought in contact with others, especially with females, that they avoid crowds, and are very diffident. Have you ever had any sweating of the hands or other parts? "No, sir." This is very commonly a result of debility of the sexual apparatus. He says he has had no sweating about the genital apparatus, and no shrinking that he can notice. Such patients

are commonly of the opinion that the penis is much smaller than it ever was before, that it has shrunk away, and that the testicles have diminished; have "gone," as they say. Now, here there seems to be nothing of that sort. Externally the man appears to be in very good condition, so that all the symptoms by which we usually judge of such a condition as his are absent, and we have no evidence but his statement that he is unable to have erections, and that he passes this fluid involuntarily at stool. In my own experience such cases are very rare. I do not know that I ever met a case before where there had been so great excess, and where there was so much seminal loss in which there was so little complaint made, and in which the mental condition of the patient was not materially changed.

I think we may hope here to get some benefit from a local application of the nitrate of silver to the region of the seminal ducts. It is altogether probable that there is a very relaxed condition there. The solution may be from twenty to thirty grains to the ounce; in a less severe case I should think twenty grains to the ounce plenty, but here we may try thirty grains to the ounce, and we will have an opportunity of seeing just how much good this alone will effect; for he, unlike most patients, has not tried all the known remedies for spermatorrhœa. The instrument used for making this application contains a double canula, one of which is connected with the interior of the syringe, and the other has its outlet near the syringe proper, and through this outlet the urine drops as soon as the bladder is entered. It is then withdrawn half an inch, the piston pushed in and the solution deposited upon the desired spot, at the seminal ducts. It is important to know just where you are applying the solution, for it is irritating, and if applied to the mucous membrane beyond or on this side of the desired locality, the prostatic urethra, the results will, of course, be unfavorable. Six drops is enough, and in order to get the exact quantity I drop it into a minim glass. If we happen to inject a little of this into the bladder there will immediately be a very urgent and painful desire to urinate, which continues perhaps half an hour or an hour; under such circumstances I am in the habit of putting in a suppository of morphine. I have known the mistake to

be made of introducing an ordinary syringe full of the nitrate of silver of this strength, the instructions in regard to its use not having been thoroughly appreciated. A physician in town asked me some years ago what was my treatment of seminal debility, where the ejaculation was premature. I told him that my usual plan was to deposit five or six drops of a solution of nitrate of silver of twenty to thirty grains to the ounce, with a syringe made for the purpose, upon the seminal ducts. The information was quite sufficient for him, and he went off, and remembered the solution was thirty grains to the ounce, and that it was to be deposited upon the seminal ducts, but he forgot that the quantity was six drops, or that anything was said about quantity. He got the solution and took up an ordinary syringe full and deposited it upon the point. The consequence was, he had an opportunity to treat the man for acute urethritis for some weeks, and subsequently the man had several strictures, evidently the result of the application. I never venture, under any circumstances, in using these strong solutions to use more than six or seven drops. This medicates the portion of the urethra we desire to medicate, and does not affect unpleasantly any other part.

CASE III.—This patient you will remember was at our clinic some time ago, and had an eruption very much like that of small-pox, which the history proved to be a papular syphilide assuming the pustular form. The primary lesion in his case occurred seven months ago, and the pustular syphilide came on three months ago, four months after the lesion. This you know is the ordinary length of time that elapses from the inoculation to the appearance of the general eruptions, when they occur. The manner of the development of this eruption has been frequently spoken of and it is not worth while to say anything about it to-day more than to impress upon your minds the fact that the pustular eruption of active syphilis, of syphilis during the active stage, is nothing more nor less than a papular eruption which has taken on pustular action. It is composed of the same material, it comes in the same way and at the same time as the papular eruption. In fact you will find comparatively few cases of the purely papular eruption, more or less of the papules having pustulated, especially

on the lower extremities, and the result simply coming from the condition of the patient, and not from the peculiarity of the disease.

You see from the appearance of this patient's face how much he has improved. I want to show him to you to-day, particularly because he has been upon the treatment recommended for these cases, and we look upon the result as satisfactory. There is a certain amount of cicatricial depression here on the face which is visible close at hand, but which you, at a distance, cannot see. A little pigmentation is also left, but that will pass off before long, and there will be practically no marks of the eruption left. The pustular eruption has disappeared entirely from the whole of the body. The glands of the neck and of the epitrochlear region should be kept track of in judging of the results of the treatment. These glands become less and less in size, but slowly. The glandular enlargements were quite well marked in this case, but now they are less well marked. Throughout this active stage we are liable to have a papular eruption appear upon the mucous membranes, especially if they are subjected to any special irritation. This is particularly true of the mucous membrane of the mouth. When we have mucous patches occurring in patients who are in the habit of using tobacco they are very hard to heal. Here in the mouth is a very well marked mucous patch, with a kind of diphtheritic deposit very much like that seen in the wound in the meatus of the patient preceding. There is also one on the opposite side of the mouth. You must not forget that any sore whatever about the mouth, as an ordinary cold sore, herpes, and so on, whether it possess this characteristic or not, is capable of furnishing contagious element during the whole of the active period of syphilis. While the patient is capable of communicating the disease in any way, any sore of any kind, as a common abrasion, is capable of furnishing the syphilitic contagious principle, and not only about the mouth, but about any other part of the person as well. To say that any place that is able to give exit to white blood corpuscle is capable of communicating the disease, will impress upon your minds the importance of warning your patients to be careful in regard to any lesion they may have during this stage. Fortunately, whether the

patient is treated or not, this stage as a rule ceases within two years. We have not statistics enough in regard to this matter to be positive, but we may presume the ground is covered when we say the limit is two years for the life of the contagious principle of syphilis. That is, whether or not there be treatment. This of course is a very important circumstance, because a very large number of persons who have syphilis are imperfectly treated, and a very considerable proportion of them have no treatment at all, and if this material continued in the blood as a contagious element until it was treated out of the system, until it was combatted by treatment, we should have persons capable of communicating syphilis during the whole of their lives. There are some who claim that if a man once have syphilis he is always capable of communicating it; but undoubtedly this is not the case, and we may assure our patients that whatever may happen to them subsequently in the way of late lesions, that after two years it is only of individual interest, it is not a matter that concerns posterity. Syphilis, then, may be said to be a self-limited disease.

Another point to which I would call your attention here is, that this eruption is a lesion which makes its appearance at a certain time in the course of the disease, and having once appeared it never again makes its appearance as a general papular eruption. We may have local papular eruptions afterwards, but perhaps we have not studied this question enough with the light we have on these matters to state positively that such local eruptions are exactly like the general papular eruption; but we know this, that a patient once having a papular eruption does not have it again, and you may say in general terms that there is no such thing as a relapse in syphilis, any more than in making a voyage there is such an accident as to make it necessary that you go that part of the journey over again. If you strike a rock in your voyage you get past it and go on, and do not strike that rock again. If you strike a rock again, it is another rock, and farther along on your voyage. So it is in syphilis. You never strike the same rock twice,—you never strike the same lesion twice, unless you may say it of lesions of mucous membranes. But it is not true even here, for they are simply mucous patches that present themselves at

intervals, just as in measles one eruption comes out to-day, another to-morrow, which we do not look upon as a relapse. If we have a papular eruption occurring locally, it is something different from, and occurring subsequently to, the general papular eruption. This has been explained, and I think very plausibly, by the assumption that a certain amount of contagious material, a certain number we may say of infected cells, have been accidentally retained in lymphatic glands which have been closed by accident with these infected cells in their interior; then by some means their exit is favored and an eruption of a papular character in the immediate vicinity occurs. This may be the case. It seems to me we shall find these localized papular lesions connected with obstruction of the lymphatics, the obstruction having occurred from damage done during the active stage of the disease. At any rate, I am certain that we do not have these localized papular eruptions in the earlier stages of the disease. The first papular eruption is always the general one, and if you have it localized on the forehead, as we sometimes do, you will not find it coming out afterwards in any great amount on the body generally, but it passes off as a light eruption. We sometimes find a papular eruption going through its entire course with perhaps not more than three or four papules, but it is just as distinctively a papular eruption as when the body is covered with pustules, as in this case. They mean exactly the same thing; they mean that the disease has arrived at a certain stage, that the disease elements have made their way through the glands which have intervened between the point of inoculation and the general circulation; that they have gone out with the general circulation, and that they have been arrested in the tissues and so a papular eruption has formed. The hour has expired.

Diseases of Children.

Clinical Lecture delivered October 30 at the College of Physicians and Surgeons, New York.

BY PROF. A. JACOBI.

OUR first case is that of C. F., aged three years, whose mother says she had the measles last April, and that five weeks later they were followed by a diphtheritic inflammation of the throat, which lasted for ten days. Ever since then the child has suffered from dyspnoea, and with each inspiration

there is heard a low, deep tone which is not a snore, although a little like one. It would be very difficult to imitate it correctly. The supra-sternal notch recedes with each inspiration and during any excitement. The breathing is still difficult. This peculiar sound is heard only during inspiration. It is more distinct when the child is asleep. This symptom does not now appear to be connected with obstructed breathing, although when I first saw the case, which was about six weeks ago, it certainly was, as there was considerable cyanosis existing at that time. The noise could then be heard down in the yard when the child was upstairs, provided the windows of the room were left open. The cyanosis was caused by some obstruction of the larynx. The sound, which those of you who are nearest can easily hear, could originate either in the larynx or pharynx, but not below the larynx. Its seat in this case, however, is not in the pharynx, but in the larynx, for were the trouble situated in the pharynx there would be no cyanosis.

Now, what condition of things could give rise to this cyanosis? "A growth on the vocal cords." Yes; or a paralysis, or both together, the paralysis being the consequence of a disturbed motility of the vocal cords by reason of the foreign growth. A foreign body would give rise to such violent reflex action that we may set that supposition to one side. It is certain, also, that if there is a growth on one of the vocal cords that it has not a long pedicle, because then it would be continually changing its place, and would likewise give rise to a spasm of reflex action. If there is a growth here, it is a flat papilloma, raised no further above the surface of the vocal cord than an eruption of urticaria above the skin.

But there is another cause which might give rise to such a symptom as this. It might be the result of a paralysis depending on nervous causes—a localized paralysis of muscle after diphtheria. Or you may have nothing but a common catarrh, causing a swelling of mucous membrane and an accumulation of mucus. Very little mucus only is required to produce a temporary obstruction, which is chronic and local, such as is seen now and then in cases of pharyngeal diphtheria where the diphtheria reaches the posterior upper portion of the larynx. At

the insertion of the vocal cords there is an immense amount of submucous tissue, and in these cases œdema takes place there, causing paralysis of the vocal cords, which are inserted in that very locality. That would result in aphonia. Sometimes this occurs after tracheotomy. Now, when there is really an inflammation extending from the pharynx in such cases, sometimes there are cicatrices formed near the aryteno-epiglottic folds, and this condition, which results in a partial loss of function, is nearly incurable, and is the cause of the permanent aphonia which may follow diphtheria. It is a condition which you will not find mentioned in the books, but I have occasionally seen it. This may be the case in this child, and it is very probable that there is just such a cicatrization at the base of one of the aryteno-epiglottic folds as I have been describing. Although I have not been able to verify the diagnosis by means of the laryngoscope, owing to the excessive nervousness of the child, yet I think that this condition of things is what we have to deal with.

The child for the past six weeks has been taking absorbents, and has also had mercurials. She has been taking corrosive sublimate. Under this treatment she has certainly improved. The cyanosis is less and she sleeps much better than before. She has had iodide of potassium also. I should advise that this treatment be continued. The doses should be of the sublimate one-fortieth of a grain during the day, which would be about one-hundredth of a grain for a dose; of the iodide, she may take ten or twelve grains a day. This, then, is a case of cicatrization occurring in the submucous tissue, near the aryteno-epiglottic folds. It is a somewhat rare condition.

Here are two children, brought here, it is said, each for the same thing. The mother says that the vagina in each child is closed. This baby is one year old and is perfectly well, with the exception of the occlusion. There is, as you see, but a very minute opening into the vagina. This is an occlusion which has taken place since birth. The edges of the labia became sore, and being in juxtaposition they healed together, and the vagina, as a consequence, became closed, except this little opening through which I pass my probe. Just the same thing would happen in the cutis under similar circumstances,

but much more readily in mucous membranes. All that is necessary is simply the introduction of a blunt probe and a tearing apart of the united surfaces, which is easily accomplished without much pain to the child. There is but little bleeding either, as you can see. Now, why did this happen? The vagina was a little sore; there was a little redness first, then epithelium was thrown off and the two surfaces being, as I have said, in juxtaposition, adhesion took place. All that is required where the union is complete, as it sometimes is, would be to run a probe in through the median line of the cicatrix and tear it open. To prevent closure afterwards, dress the parts with a little cold cream and let the baby sit down in a bath three or four times a day. If she cries and kicks, so much the better. If you use zinc ointment, which you may instead of cold cream, see that it is not rancid. Prescribe it newly made. It is better not to introduce any lint between the two surfaces, as that has a tendency to irritate.

The other case is exactly the same and I treat it in the same manner. There are cases of congenital occlusion of the vagina, which are much more important than this and may depend on an arrest of development or on an inflammation occurring during foetal life, followed by adhesions. It is very rare to find such cases as these which we have just seen in people with cleanly habits. They are almost always to be found in the lower classes, and in this instance it is because the children have been kept dirty that this has happened. It is due to a moral family disposition, not a physical one.

Here is a case which has been diagnosed as malarial trouble. In this connection I would like to say that never before this year has there been so much error in regard to malaria as at present, and whenever a person comes from Jersey or South Brooklyn they are said to have malaria. Let us hear the history of this case: C. S., a boy $5\frac{1}{2}$ years old, has been living in New Jersey. Two months ago he had a fever lasting for several hours, but not followed by perspiration. On the second day following he had a similar attack. He was given quinine and the fever disappeared. Two weeks ago he had a similar attack, which again yielded to quinine. The later attacks commenced in the evening, the former in the morning. The spleen is

enlarged, as I find by percussion. Yesterday the mother said he had another attack. Now, when a child is said to have fever on every other day, be sure that it is so and that he does not have a fever every day which escapes notice. Intermittent fever in a child is more apt to be quotidian than tertian, as in the adult. Now the mother says that the child has had a cough. She says that, before the fever comes on, which it does suddenly, that he coughs a great deal. Is it possible that the child has a bronchitis or a broncho-pneumonia, which would explain the fever. Its remittent character forbids that. The cough and vomiting, which he has also suffered from, are of a reflex nature. The vomiting, which occurs in the beginning of many acute diseases, is simply due to a disturbance of the medulla oblongata, produced sometimes by the high temperature only; also by the disturbance to the circulation. We see vomiting in pneumonia and scarlatina very frequently and from this cause. In this case the trouble really seems to be malaria. The mother says the fever is tertian, which, as I have said, is unusual in a child. She also says that he has had only one attack preceded by a chill, and that although the nails are blue first, yet the fever comes on at once. This would be peculiar in an adult, but it is not in a child where the algid stage of intermittent fever is usually not observed.

The younger the child the less are the peculiar symptoms of intermittent fever developed, although of course there are exceptions. The temperature runs pretty high. A body heat of 105° , 106° or 107° , is more frequent than 102° , 103° , for malaria is one of those affections which yield the highest temperatures. As a result of the high temperature, severe nervous symptoms are common. In place of the chill you will find that the hands feel cold and the nails look blue. The child may have a severe convulsion which may last some time; then if you take the temperature you may find it 106° , 107° . That ought to advise you that you have either scarlet fever or malaria to deal with, for it is only severe attacks of meningitis or pneumonia which would give rise to such a temperature. Remember, now, that you are likely to have another attack in a day if you do not prevent it. Give a dose of quinine at once, for the next convulsion may prove fatal. In malar-

ial regions it is said that the third attack is fatal, but that is not so, as I have known recovery to take place from a third attack. If then the convulsions return on the second day at the same time, it ought to arouse suspicions that they depend on malaria.

In children the spleen is not always enlarged, and even when it is, it is often difficult to discover it. The treatment of malaria in children is the same as in the adult. The quinine is not to be administered during the attack, but in the interval, and if the case is one of remittent fever, during the remission. The dose of quinine ought to be proportionately larger than in the adult—seven or eight grains a day (in child 2 to 4 years old). Do not divide the doses. When the child cannot be removed from the locality, the fever is apt to recur, and quinine ought to be given at regular intervals. Let the child take seven or eight grains in the morning three or four hours before attack on the second, third, fourth day, then on the sixth, eighth, twelfth day, and continue the use of the quinine for a month at intervals of four or six days.

If it does not yield then, you may give ergot, either in the fluid extract or Bonjean's ergotine, or Squibb's extract. In bad cases you may give the ergot subcutaneously now and then. The ergot acts on the enlarged spleen just as pressure of the hand on an overfilled sponge. I have used ergot in such cases with good results. So in chronic cases, where quinine does no good, you will have to use arsenic. It is a good remedy. In those cases where there is much anæmia, and consequently less resistance to the malarial poison, give iron. Here the best form of iron is the syrup of the iodide of iron, first for the action of the iron, second for the action of the iodine on an enlarged viscus. Eucalyptus globulus has been used in some cases, although it has not been as successful as claimed. However, it occasionally does good. If the dilatation of the spleen continues, there is sure to be a change in the structure of the viscus, and a permanent hypertrophy will be the result, which is the so-called fever cake of malarious regions.

The late Dr. David P. Smith bequeathed his medical library, instruments and two-fifths of his estate to the medical department of Yale College.

Report on Two Hundred and Eighteen Consecutive Obstetrical Cases.

BY DR. A. F. HOKE.

Read before the Detroit Academy of Medicine.

IN casting about for a subject on which to write an inaugural paper, I chose rather to give a short resumé of my obstetrical experience than to theorize on a more abstract subject. As was remarked by the writer of a somewhat similar paper which was read before this society a few years ago, "Physicians learn largely from the related experience of others." I have also to some extent adopted the same writer's plan of classification. The following report of cases is based on notes which are to some extent imperfect, so that I cannot give the average length of time occupied in all labors, nor the position in normal cases of head presentation, as I omitted to make a note of it at the time. Up to January 1, 1881, I have attended 218 cases of confinement. This includes only premature, and labors at full term of pregnancy; abortions not noted. It includes, however, three mole pregnancies, one of the fleshy, and two of the hydatiform variety. One of the latter was carried by the woman about eight months, and gave rise to considerable hemorrhage; labor lasted about five hours; I eventually brought it away piecemeal. The whole mass filled an ordinary wooden pail about half full. The uterus contracted nicely and the woman made a speedy recovery.

I will mention a peculiar coincidence which took place in these cases and one which is often observed by physicians in practice. I attended these three cases on three successive days, and they are the only cases of the kind that I have met in a five years' experience.

Leaving out the mole pregnancies, of the 215 remaining, 164 were normal and 51 pretermatural, (that is where interference was necessary.) Of the mothers, 38 were primiparæ, 180 multiparæ; part of child presenting—head, 195; head and hand, 3; arm or shoulder, 12; breech, 12; cross, 1 time; single births, 207; plural, (twins) 8; casualties to mothers—rupture of perineum occurred twice; vesico vaginal fistula once, and death twice. Of the ruptured perinei both occurred in primiparæ, in one during the use of forceps, and the other was a normal case. In neither did the rupture extend through the spinchter ani, and in both the wound healed kindly, with no other treatment than to fasten the

patient's limbs together at the knees and ankles, and having her lie on the side. Applied carbolized oil.

The case of vesico-vaginal fistula occurred in a shoulder presentation where the presenting part was mistaken by the midwife in attendance for the breech. When I was called I found that the membranes had ruptured six hours previously, and the shoulder forced down low in the pelvis; gave ether and delivered by turning; twenty-four hours later finding that the woman had passed no urine, I catheterized her and could obtain not a drop of urine; suspecting the nature of the difficulty, I made a vaginal examination and found a ragged opening just above the neck of the bladder, through which there was a continual dribbling of urine. The lesion was no doubt caused by the long continued pressure causing the soft parts to slough.

The cases of death both occurred from peritonitis, one following podalic version in an arm presentation, and the other a prolonged labor terminated by the application of forceps. Both cases were first attended by midwives.

In the two cases of placenta previa, which I attended, I was called in only after labor had set in and the os uteri sufficiently dilated to at once proceed to turn and deliver. Both were cases of incomplete or marginal attachment, but gave a history of sudden gushes of blood during sleep, etc. In one of these cases, the hemorrhage was terrific, when I reached her bedside, filling the bed with blood, soaking through a straw mattress and forming a pool on the floor beneath; patient very weak and exsanguinated. I found an arm in vagina, and speedily as possible turned; child was asphyxiated, but by the usual means was resuscitated, but lived only a few hours. In the other case, the child is yet living.

CONDITION OF UTERUS AFTER DELIVERY—HOURLY CONTRACTION ONCE, ADHERENT PLACENTA TWICE.—It will be seen from the above that my percentage of preternatural cases is much higher than usual. This is explained by the fact that among a certain class of the German part of the community nearly all cases of confinement are attended by midwives from motives of economy, and a physician is only called on in cases of emergency. Thirteen of fifteen abnormal presentations, and twenty-two out of

thirty-six of the cases in which I applied forceps were first attended by midwives.

Having taken up your time by very crudely presenting the above cases as a whole, I will now report a few of them more particularly. As the following case bears somewhat on the relationship of zymotic fevers to peritonitis, I will report it, although it may seem a digression from the main subject.

I was called, January 18, 1880, to attend Willie L, a child three years old, suffering from scarlatina simplex. January 23, the mother of the child was confined, lying in the same room, labor natural and easy. January 27, or four days after confinement, I was called, and found that she had had a chill, temp. 103°, abdomen tympanitic and tender, thighs flexed; in short, the usual symptoms of peritonitis. The usual line of treatment (free doses of quinine to reduce temperature, opiates, application of hot fomentations, etc.) was followed, and patient recovered in usual time.

February 11, when I called to see this case, I was asked to prescribe for the mother of case No. 2 and grandmother of case 1, living in another part of the same house, who had sole charge of nursing both cases. I found her with facial erysipelas, beginning at the nose and by the next day extending over one side of her face and ear. Case recovered under usual treatment. Here there was a case of scarlet fever, during the stage of desquamation, a woman was confined in same room, and was taken with peritonitis, while the nurse was taken with erysipelas.

I was called, December 3, 1880, to the bedside of Mrs. R., a German woman, 26 years of age, to attend her in her third confinement. Her first confinement, I learned, was easy and rapid. In her second, I delivered her of a dead child, it being a case of arm presentation.

On reaching the house in this case (the third), I found she had had pains during the past twelve hours, which were now quite frequent. On making a vaginal examination, found the bag of membranes completely filling and protruding from the vagina. The os was dilatable, but I was unable to reach the presenting part. I suspected a mal-presentation, and ruptured the membranes during the next pain. I then made a careful examination, and found the vertex presenting above the brim, pelvis roomy.

Pains came on quite frequently, but not of a sufficiently bearing down character. I gave one half-drachm dose of Squibb's fl. ext. of ergot, which I again repeated in about one hour. The pains increased in force, and finally took on a decidedly ergotic or tonic action. The head seemed to become partially engaged, and fearing for the safety of the child, I concluded to terminate the labor with forceps. The application was made with but little difficulty, but I found that by moderate traction the head made but little if any advancement. I concluded to make another and more thorough examination. Laying aside the instruments and having her inhale a little chloroform, I introduced my hand into the vagina, up to the side of the face and neck of the child to see if perhaps an unusually short cord wrapped around the neck would not account for the non-descent. When my hand reached the child's left ear, it came in contact with a hand, which, on tracing up, I found to be the child's right hand and arm, extending over the posterior part of its head and neck, forming a barrier to the descent of the head. With a great deal of difficulty, as is usual at this stage of labor, and increased in this case by the tonic contractions of the uterus induced by the ergot, I succeeded in performing podalic version and delivering her of a dead child.

I have no doubt that posterior displacement of the arm is a comparatively rare obstetrical complication. Tyler Smith, in his work on midwifery, mentions only one case that occurred in his practice. In his case he also applied forceps and attempted to deliver, before he discovered the real difficulty. But I am promising myself that under apparently similar circumstances I shall be more cautious in administering ergot. I might say here, in passing, that I regard ergot as a very valuable adjuvant in obstetrical practice, but latterly, as a rule, only administer it after the head has fully engaged in the lower strait. In a few cases, when I gave it early, even after the os was dilatable and the pelvis roomy, the children were asphyxiated, as I think, by the placental circulation being partially cut off by the tonic contractions induced by it. Where I gave late to insure contraction of the uterus, I expel the placenta. Where I feared post-partum hemorrhage, it has often induced very annoying after-pains; I think a safe rule to follow is the one laid

down by Prof. Jenks, in his lectures, viz: Never give ergot unless from the nature of the case labor should normally terminate in an hour.

Scarlet Fever—Peculiar Etiology.

BY DR. E. B. WARD.

THE subtilty of scarlatina virus passes human ken. In a given number of subjects exposed to small-pox we can determine with tolerable correctness what the result will be, but scarlatina obeys no definite rule. It is not uniform in its operation, like small-pox, but the contagion has a tenaciousness and a lurking cussedness not dreamed of by other contagious disorders (supposing them to be asleep).

It lingers in an apartment or clings to a bit of flannel or cast-off garment of any kind to an unlimited extent, so far as we know; whereas, the small-pox virus disappears by free exposure to fresh air, in a comparatively short time.

In proof of this statement, I present the following cases which occurred in my practice last month:

Some time during the winter of 1875 a malignant form of scarlatina appeared south of this village, and fairly decimated the families throughout a certain neighborhood.

Last spring one of the farmers, in whose family the disease had occurred, sold to a man whose family consisted of a wife and three children, who occupied the house in peace until, some time in December last, I was called to attend the children, who the messenger told me, "had a rash and were mighty sick."

I found the eruption, the sore throat and strawberry tongue of scarlatina, and began to inquire as to where the exposure could have taken place, but elicited nothing, as the mother declared that they hadn't been away or had any company which could account for the phenomena. Further, there was no scarlet fever in the vicinity.

Finally, it transpired that the father had cleaned out the attic about ten days previous, and among the rubbish were certain clothes and a rag doll and pictures which were recognized by the neighbors as some that were used in the sick room to amuse the little patients five years before. The little new-comers utilized them. I was prepared to believe that the poison of scarlatina might linger

around a house for a year or so, but I could account for the disease in these cases only on the supposition that it had been contracted from poison which had been retained in those old rags *five years*.

The children all came down at once, showing simultaneous exposure to the virus, and all went through the routine at once

Desquamation was very decided, and they amused themselves by peeling strips of cuticle off from their fingers for some time. Acute Bright's disease followed one of the cases, but was easily controlled, and all made a good recovery.

The diseased children were immediately isolated when the nature of the malady was discovered, and there was no spread of the contagion.

Now let some one who is better versed in eggs and embryology, fomites and bacteria go on and give a parallel case, or account for the thing in any other way.

Laingsburg, Mich.

Reports of Societies.

Flint Sanitary Convention.

THIS was held at Flint, Mich., under the auspices of the Michigan State Board of Health. As regards the interest awakened among the people, it was a success. We abstract some points of general interest from the papers, for which we are indebted to the *Genesee Democrat*:

Dr. Kedzie gave an interesting account of the slaughter of the innocents. He said that there are a number of diseases that are waging herodian war among the children, which are preventible. Among these are the measles, whooping cough, scarlet fever and diphtheria. To say that they are hereditary to children is a popular fallacy, and he considered it a crime to allow them to wage war and destroy one half of the children before they reach the age of five years without making a strenuous fight. Although these four infantile diseases carry off more every year than the terrible yellow fever, no notice is taken of them as compared with the steps taken to stay the spread of yellow fever. There is no danger of their being hereditary if they are not encouraged. Instead of the disease hunting around for victims, they are literally invited to take hold. It is the sympathizing

mothers and friends who convey diseases from the sick or dead to the healthy child. If, instead of going to the chamber of sickness or death to sympathize with sorrowing friends and neighbors, the mother was to stay at home, it would be better for her children. As one step towards staying the spread of disease, he thought that the Legislature should enact a law to prevent public funerals where death has been caused from infectious diseases.

PURE AIR, WATER AND FOOD.

Hon. Geo. H. Durand, of Flint, president of the convention, read an excellent paper, dealing principally with the good effect of pure air, water, food and cleanliness of body. He said that the question as to the best means of arresting diseases and placing the death rate at the lowest minimum should command the very best thought of the statesman as well as the sanitarian. In his opinion cleanliness of surroundings, good water, pure air and wholesome food would do away with a great deal of these epidemic and contagious diseases. It is a delicate matter to speak to individuals about the cleanliness of their bodies and surroundings. Some think that their uncleanliness is all right as long as it does not interfere with their personal comfort, but sanitarians take a different view of the case. A woman may think it is all right to throw garbage and slops in the vicinity of the kitchen door, but a sanitarian sees diseases and death in that act. If the simple maxim that "an ounce of prevention is better than a pound of cure" can only be impressed upon the public mind, it will have a beneficial effect upon their health and save many a heavy doctor's bill. It is better to pay a physician to prevent than to cure diseases, and pay him well, too. In China the family physician receives his pay to prevent disease, but immediately that sickness comes that doctor's pay ceases, and in this way the doctor finds it to his interest to see that the people under his care are kept posted as to what they should do. If he was a doctor he would go to China, as it would be much more pleasant. The health officer of every town or city should post up bills informing the people that such and such diseases will be prevalent at such a time, and advise them what to do. It will be noticed that bills are posted up announcing what dire things will follow if a dog is found with-

out a muzzle winking at anybody, and if misled cows are found running at large after certain hours, but never a word in regard to the important subject of health. It is hardly to be wondered at that disease is so prevalent if it is taken into consideration where the water supply comes from. The majority of wells are situated so as to receive a large amount of human and animal excreta, and it is hard to tell what a terrible incentive this alone is to disease. He proposed that vigorous measures should be taken to keep the wells as well as cess pools, etc., clean, when there would be less diphtheria and kindred diseases.

DOMESTIC SANITATION.

Dr. J. H. Kellogg, of Battle Creek, in his opening remarks, said that domestic sanitation and individual hygiene, although matters of the most vital importance, do not receive the attention they merit. Defective drainage, wells, sewers, etc., are well-known causes of disease, but what we eat, drink and breathe have more to do with health than people imagine. He called attention to the danger of eating the flesh of diseased animals, and said that too much care could not be exercised in choosing meat, as there is great danger of contracting consumption from eating the flesh of animals affected with the disease. In ventilation the grossest negligence exists. People who are the most fastidious about the food they eat and the fluids they drink, who would as soon think of starvation as of eating what had before been in a human stomach, will sit with the utmost complacency for hours in a public assembly or nice private parlor, breathing over and over again the vile products of respiration sent out from their own and other's lungs, to say nothing of the emanations from dyspeptic stomachs and the fumes of *nicotiana tobacum*. Upwards of 60,000 people in the United States die annually of consumption, the disease in the majority of cases being the result of breathing impure air. Prisoners in jail are allowed on an average 640 cubic feet of air each. The majority of the rooms in our houses are too small—so small, indeed, that the occupants have about one-third the amount of fresh air that the prisoner has. He advocated a liberal ventilation of rooms and cellars as conducive to health. In conclusion he said that there is more need of missionaries to preach the gospel of health

at home than there is of sending them off to foreign climates to preach to the heathen.

Several committees were appointed, after which a paper on

SEWERAGE AND ITS ADJUNCTS,

was read by Dr. Daniel Clark, of Flint. He gave the principles which should govern the laying of sewers, soil pipes, etc., and said that sewers should not be porous, but impervious to fluids. They should also be ventilated, but not into houses.

The evening session was called to order shortly after seven o'clock. The first paper read was

INTEMPERANCE AS A CAUSE OF DESTRUCTION OF HUMAN LIFE.

Mrs. E. Clark, President of the W. C. T. U., of this city, handled this subject in a very able manner. In opening she said that human life is composed of at least three essential elements: the mental, moral and physical. By the continued use of alcohol all these will be impaired to such an extent that nothing but the semblance of humanity remains. She traced the history of drunkenness from the time of Sampson down to the present day, and showed that it was steadily on the increase, notwithstanding our boasted civilization. It is estimated that in the United States alone 150,000 are annually consigned to drunkard's graves, reducing 200,000 children to beggars, and it is believed that one-half of the crime and accidents of our country are the results of alcoholic delirium. Although it has been proved that alcohol is not a food, is not digestible and weakens the stomach, yet doctors prescribe it to their patients as a stimulant. She would not be surprised at them if they used it in cases of softening of the brain, as alcohol is an excellent petrifier or hardener. In her closing remarks she struck the doctors straight from the shoulder by saying: "You recommend that the low, swampy, miasmatic lands about our cities be reclaimed. You urge that, for the health of the community, all drains and cess-pools should be looked after. But do not forget that the *moral* as well as the *physical* health of our communities is in peril. The miasm of all our swamps and cess-pools together is not one-half so deleterious to the people as the poison dealt out from the sink holes of iniquity—the dram shops."

THE RELATIONS OF SANITATION TO
CHRISTIANITY

Was the subject of a very able paper by the Rev. Dr. Stocking, of Detroit. In the course of his remarks he gave some good sound advice to parents in regard to their children. "Care should be given," he said, "to the physical education of our children. Many children are sacrificed to rich food, unseasonable hours, fashionable dress and evening parties. The nursery and the open air, simple food, unfettered limbs in unembroidered garments, romp and play, sleep at the bird's own hour, will prevent many children from drifting into the great ocean of eternity."

This closed the second session of the convention.

The third session opened Wednesday morning at 9.30 o'clock.

The first paper was read by Dr. Nicholson, of Otisville, who gave an interesting account of "Some of the Dangers to Health attending Pioneer Life."

Dr. Jerome, of Saginaw, followed with the

IMPORTANCE OF DOMESTIC SANITATION.

He said that the importance of a thorough and efficient sanitary police, with full power and authority to act in our stead, to the educated sanitarian is quite as important as that a civil police should be established for the detection and punishment of the highwayman or the assassin. To avoid the danger of pestilence sweeping over the country, it is necessary to awaken in each individual mind a sense of need of domestic sanitation, and to acquaint him with the requisites of healthful living. It is not the quantity of his food, water or air that should concern a man, but the quality.

Prof. Victor C. Vaughn, M. D., Ph. D., of Ann Arbor, followed with a very able paper on the "Force Value of Foods," after which the session adjourned until the afternoon.

At 3 o'clock the fourth session was called to order.

Prof. H. F. Lyster, A. M., M. D., of Detroit, read a paper on "A New Board of Health for Detroit," which was followed by Dr. J. S. Caulkins on "Forests and Trees as Sanitary Factors." In this paper the doctor said that forests and trees are necessary to public health, as they have a great influence on the climate and atmosphere. At least twenty-five per cent. of the land should be

covered with forests, although at the present time a much smaller proportion remains in many portions of the country.

An adjournment took place until 7 o'clock in the evening, when the fifth and last session of the convention convened. The several committees presented their reports, and resolutions of various kinds were passed.

Rt. Rev. Geo. D. Gillespie gave a paper on "Sanitary Associations," including a report of the Grand Rapids Sanitary Association. This was followed by the Rev. Dr. Jacokes, of Pontiac, who showed the importance of having "Pure Air in Our Dwellings."

Professor M. T. Gass, Superintendent of Schools, of this city, read a paper on the very important question

IS THE WORK DONE IN OUR PUBLIC SCHOOLS
DETRIMENTAL TO THE HEALTH
OF THE PUPILS?

He said that this is a question which calls for a solution. False notions prevail in the minds of many who have children at school that the work is detrimental to their health, but he assured them that such charges were entitled to but little credulity. There are frequent cases of ill health among pupils, the causes of which have been attributed to over work in the school room. These charges are made, in some instances, in good faith by the fond mother, and almost invariably with no small degree of pride in the fact that her boy is a martyr to so noble a cause. It is such a flattering, comforting thought that the mother seldom thinks to look further for the true cause. Sweeping charges are made that the system of education is radically wrong; the course of study excessive in its requirements, teachers oppressive in the tasks assigned, and everybody and all things connected with the work condemned and a demand made that the entire system be changed on account of its unhealthy tendency. He cited one case in particular, among many similar ones, where a mother had made such a charge. Upon investigation he found that her son was suffering from an injury he had received over a year previous. A journey through the grades of the various departments in our public schools, and an observance of the attention given to the welfare and comfort of the children, as regards temperature, cleanliness, study and recreation, will convince anyone that their

sanitary wants and physical comforts are quite as well, and, in many instances, better looked after in school than at home. The line of studies are arranged as well as they can be and to suit the average ability of the pupils. To provide a course commensurate with the capacity of dullards and drones only, or suited to the indifference of those who have apathy for school work, would be depriving a majority of pupils of the mental pabulum necessary to a healthy growth of mind, and as evidently unjust as the other extreme. That the course is imperfect and may be improved in many respects, no one will deny, but that it is so excessive in its requirements and exacting in its demands upon the strength and ability of pupils as a whole, doubtless very few, if any, who are familiar or experienced in the work will admit. He related the course of studies pursued by the pupil each year, and showed conclusively that they were not too hard, and that the close application of the pupil to his lessons for but a short period each day would not impair the health in the least. Although many break down while in school harness, that is no reason why the whole system should be assailed when it is really not the cause. Those of our pupils who suffer ill health from over-work in school will not be found, he thought, of the many even-tempered, steady-going ones who are willing to take things in the order in which they come and in the time allotted, but of the few who are ambitious and anxious to double the work and take it in one half the time. These will be found to have suffered, not from the work done or required in school, but that which is performed and self-imposed outside, and for which the course of study is not responsible. Several cases were cited wherein children are allowed to read book after book of fiction at home, injure their health by over-reading, and yet the parents charge their ill health to over study at school. If school work was the only burden that taxed the strength of pupils, they would carry a much lighter load than many of them do. Outside studies, such as painting, drawing, music lessons, etc., are often added by parents outside of the school work, and there is no wonder that the brains of some children are over-taxed. From his own experience and judgment he could not believe otherwise than that school work, by the

regular habits it induces, by the mental stimulus it affords, and the love of knowledge it inspires, tells favorably upon the physical health of children; that the evils of school life are accidental rather than necessary, and that an attendance upon our schools, under favorable physical conditions, promotes health and longevity.

The Detroit Tancet.

LEARTUS CONNOR, A. M., M. D., EDITOR.

Why Should the Alumni of Medical Colleges take an Interest in their Alma Mater?

AS a matter of fact alumni of medical schools know little and care less about the welfare of their colleges. This is an important element to consider in the future outlook for the profession. Let all or most of the alumni of any particular school be interested in its every movement and an all conquering force would carry that school onward to certain prosperity.

Dr. Cowling, in the Louisville *Med. News*, makes some pertinent remarks on this point. He says: "To save our lives we cannot see what there is in the present organization of the medical schools which would excite any extra fervent loyalty on the part of their graduates. It is pleasant enough to hear the sentiment about Alma Mater on commencement days; but if you come to analyze the matter, she seems a very selfish sort of an individual. Too timid to exact discipline which would be of service to her children; making a stir now and then about the decencies of life, but satisfied in the main with the money her offspring bring her, and not wishing to be bothered with troublesome reforms."

Pity 'tis true; true 'tis pitiful. Our wonder has ever been that with such a mother any decent children came into the world. Evidently they must have become good in spite of the maternal blood and maternal training. The doctor suggests that the direct representation of the alumni upon the board of trustees would tend to interest the alumni in the medical schools. Doubtless this is true, but we fail to see how boards of trustees can transform the selfish mercenary motives and actions of the teachers. Unless the college can make it appear that its one

great aim is to benefit its students it will scarcely command the unselfish devotion of its graduates. Some things in this world cannot be bought, and prominent among these is love. Teachers who do not love their pupils are fools if they expect to receive love from them. In the case of a medical college the teachers are the college. If the teachers think it desirable that their alumni should love the school then they must love the pupils of the school. Farther, as we have on other occasions remarked, if medical colleges are to receive endowments and the substantial support of the cities in which they are placed, then the teachers must make it evident that in all matters relating to the conduct of the college there is an unselfish devotion to the common good of profession, the people and the teachers. But the prevailing idea of the modern medical college is as far removed from all this as one can well conceive. We are fully convinced that the inauguration of a medical college on this basis would meet a hearty reception from all who could comprehend it. So long as teachers engross themselves up in their own personal selfishness, caring for their students little more than the dollars, which directly or indirectly they bring, and for the best interests of the profession and people not at all, their graduates will continue apathetic as they have been in the past, and rich men will leave their money to institutions that are conducted in a more disinterested manner.

Out-Patient Relief—Another View.

THE medical journals have, during the past few years, dwelt very fully upon the abuses of dispensaries, but mostly from one side of the question. Many members of the profession look at the out-departments of dispensaries and hospitals as a means by which the profession is deprived of its legitimate means of income. The *Boston Medical Journal*, Jan. 27th, suggests certain reasons for the belief that the general profession has contributed largely to the growth of these institutions in both their uses and abuses :

"Almost every physician in the cities must have found it more convenient at some time to refer a patient to the dispensary than to treat him—perhaps the patient was a troublesome one, or the doctor lacked the time to unravel a puzzling case, or he preferred to

send it to the hospital that had a special department devoted to similar cases. It may have been a perfectly proper method of disposing of the case ; but so far as that patient or his friends were concerned it threw the influence of the doctor in favor of a charitable institution.

"Again, some physicians wish it to be known that they practice only for those who can pay. Sometimes they demand their fee in advance, and patients who can no longer pay are sent in a sort of disgrace to receive charity. Such a patient finding the reality not very disagreeable, influences others, and they in turn their neighbors, till no one can calculate the result of that one refusal to give charitable advice.

"Physicians at a distance send patients to hospitals for gratuitous consultations, teaching them how to take advantage of the out-patient departments with which their student life has made them familiar, and are surprised that others follow whom they have not sent, and in their complaints that the metropolis absorbs all their important cases, forget that they themselves have helped to bring about the result.

"Then the out-patient system relieves the busy practitioner of much responsibility. The patient who has paid his fee for years, and is now destitute, the superannuated nurse, the worn out domestic, and all the numerous dependants whom the prosperous man gathers about him, and who look to him for medical direction, are cared for, for him, by the younger generations of dispensary physicians.

"Suppose the dispensaries closed, what an amount of work would be thrown upon the general profession which it could not conscientiously throw aside. What a number of patients unable to bear the burdens of sickness, and yet not paupers, would appeal for aid. It would be but a short time before the custom of former years would be forced upon certain members of the profession, of opening their offices upon certain days for free treatment of all that chose to apply ; a custom superseded by the out-patient system but undoubtedly equally abused in its day."

Thus it seems that the profession as a whole has a responsibility in the matter. It is plain that the profession needs to encourage the feeling of pride and independ-

ence on the part of people able but not always willing to pay for medical attendance. Each member of the profession can do something, and something from each would revolutionize the whole matter in the minds of the people. Without co-operation on the part of individual members of the profession, the most stringent efforts at reform by the outdoor clinics will prove of little avail.

Then there is still another side to this question. We allude to the use made of the dispensary practice to make original investigations by the younger men. In the early part of a professional life there is time to study new questions, and there is the incentive of youthful enthusiasm and a plastic mind ready to see and grasp truth wherever found. The dispensaries are mostly in the hands of such. Thus a fitting field is afforded for the exercise of all their powers of observation, etc. From this field much that is best in the progress of medicine and surgery has taken its rise. What was a burden to the middle aged practitioner becomes to the youthful one a very harvest field. The periodical medical literature of the day would suffer irreparable loss by the abolition of out-door clinics. Let the profession set about the correction of the abuses that have grown up with the clinics, and we shall find that these institutions are among the most valuable to the advancement of the interests of medical science, the medical profession and humanity.

Practical Clinical Instruction in Medical Colleges.

For years one of the standing attractions of the several medical college advertisements has been their clinical instruction. Long lists of hospitals, dispensaries and out-door clinics have been given to impress upon the students' minds the idea that all possible clinical instruction is placed at their disposal. How far short of this the actual reality is found is well known to earnest students who have sought these colleges. A writer in the *Boston Med. Jour.* gives a description of the practical clinical advantages enjoyed by the students of the several New York medical colleges in gynecology. At the College of Physicians and Surgeons, "No instruction in the education of the touch is given, it being found impracticable in so large a school, numbering something over five hundred and fifty students, to furnish facilities for indi-

vidual examination of cases. The student here is most fortunate in listening to the unequalled lectures of Dr. Thomas, able, interesting and instructive; but his clinical advantages are necessarily limited, and his opportunities for practical clinical work almost nothing."

At the Bellevue Hospital Medical College, he says, "With the exception of the times when one or another student is asked to examine a case, he has few opportunities to educate the touch." At the Medical Department University of New York, he says, "The advantages to the student at this school for practical work, the education of the touch, the attempts at diagnosis, etc., are very small."

In the same journal, we find a report from the dean of the Harvard Medical School. In it he says: "The most valuable clinical instruction is that in which two or three students at a time receive from a skillful instructor, who allows them to see, touch and listen for themselves. If it be said that it is impossible to give such personal instruction in a large school, without a great number of clinical instructors, the answer is two-fold: that the number of clinical instructors ought to be as large as the community can well supply; and secondly, the university should be more concerned to have a good school of medicine than a very large one."

We have given these quotations, not because the New York schools teach gynecology worse than other large schools, but because the same description here given to the clinical teaching of this branch applies equally to the clinical teaching in all the practical branches of medicine and surgery, and because in all the large schools the same method of teaching is pursued. The suggestion of Dr. Ellis that the number of clinical teachers should be so increased that every two or three students should have a clinical teacher, is one worthy of more careful consideration than it has received.

We know of a few schools in which the clinical teaching is given to the senior class one by one. The labor of such teaching is enormous, but the results to the student are invaluable. In fact, the sooner medical teaching returns to the "one by one" plan, the better it will be for the future of the profession. The difficulty in obtaining teachers may have a tendency to check the multi-

plication of medical schools. This, added to the diminished returns, pecuniarily, from such teaching would check the craze to attempt to teach from purely mercenary motives. The increased cost of teaching would tend to check the craze to enter the profession from the same motives. In all of these ways there would be a tendency to remedy the overcrowding so seriously felt in the profession. The lower the moral standard of the profession becomes, the greater will be the tendency of large numbers to enter it. Hence, one reason for maintaining the highest possible ethical standard.

Michigan State Board of Health—Legislation Respecting It.

EVERY session of the legislature sets in operation the schemes of both the friends and enemies of this board. The danger is that the friends of the board will relax effort, being convinced of the justice of their cause. If the profession and the people want a good board and want good work done in the cause of public health they will be wise to jealously guard against the efforts made to cripple the present board. Further, they will use what influence they possess to bring about an increase of the funds placed at the disposal of this board as was recommended by Governor Jerome in his message to the legislature. Again, the amount of gratuitous work done by members of the board for nothing is a disgrace to a great and wealthy state like Michigan. This work should receive some pay. Surely the state is not a pauper that it should ask these services for naught. Further, the control of the vital statistics should be placed more fully under the control of this board. There are no other state officials as capable of doing the best work in this direction. With the machinery in their hands, and the needful brains, this department is capable of attaining even better results than in the past. We have not time here and now to argue the matter, but we believe that every thinking man will agree that every effort should be made to induce the legislature (1) To place more money at the disposal of the Michigan State Board of Health to use in its work, at least as much as recommended by the Governor. (2) To furnish some compensation to the members of the board. (3) To place the vital statistics more completely under the control of the board. In our judgment

thirty thousand dollars placed at the disposal of this board would do more good to the state, to the great masses of the people, than when spent in any other direction. We have the very best board in the United States, and by providing liberally for its needs in the prosecution of its work we shall reap far richer returns in the future. Horses well fed and housed and otherwise well cared for do the very best work before the carriage, the cart, the car, or the plow. Brain work, such as comes within the province of this board, surely should be well paid. We are in no ways connected with the board, and hence speak in the capacity of a private citizen. Let us give the board all materials to work with that it can possibly utilize to good advantage. Just now, let those who believe as we do not forget to exert every influence in their power to induce the legislature to act wisely in this matter.

Louisiana State Medical Society Proceedings for 1880.

THIS report contains six reports, five papers and the minutes of the meeting. The subjects of the papers are, "Morbus Coxarius," "Cold Douche in Algid Fever," "Incised Wounds of the Abdomen," "Medical History of Plaquemines Parish," "The Conservative Influence of Disease." The reports were on, Hydrophobia, on Medical Education, on Public Hygiene, on State Medicine, etc. As a whole this report compares favorably with any State society's work.

The paper of the Rev. H. M. Thompson, M. D., on "The Curative Value of High Character in the Physician," is a somewhat remarkable one to be written in this materialistic age. We quote a few thoughts: "The workman is greater than his tools. I have far more faith in the physician than in his medicine. It is coming to this in all directions, that the doctor goes for much in the mind of the sick and the materia medica for little, that the tendency is to trust oneself or one's family in the hands of a gentleman educated, refined, honorable and of high manliness, rather than into those of the most scientific mere mechanic. And human instincts are true here. Explain it or not there is a curative effect in human nature itself. The best physician carries his own remedies in many cases. The name you give this power is of little consequence, so

the power itself be recognized. But if in the presence of the pure, impurity departs; if in the presence of greatness, common men feel they too might be great; if in the presence of truth, falsehood hides itself, and the best powers of our nature are stimulated by the companionship of noble and lofty types, shall we be surprised that the presence of a robust, healthy and gentle nature, sympathizing, interested and encouraging, should give strength to the weak and health to the sick."—"The true physician's presence brings healing. When it does not; when a man knows there is nothing in himself, that all is in his prescriptions, he has mistaken his calling."—"There are medical men in this city whose patients I have been called to visit as a pastor. They have been prescribing and treating skillfully, I doubt not. But whether so or not so, I could tell every time by the improved condition of the patient whether the doctor had called. Before any medicine had been touched the cure had been begun by the mere presence of the strong, gentle and trusted physician. Others may be doctors, but such men are healers, physicians with diplomas from nature and God."—"There are a few things in this world which cannot be bought. They are things most precious as well as most needful. One cannot buy sympathy nor trust; one cannot buy love. These things are given; if bought they must be bought by money of the same coinage."—"Yours is not a trade. You have nothing to sell. You only bring yourself and yourself is not for a sale. But you bring all yourself—your integrity, your honor, your sympathy, your strength of heart, your courage and your hope. You cannot divide yourself and bring only your brains. You cannot bring your skill and leave the rest behind. All comes and you stand at the sick bed with all that makes you what you are—just so much genuine manhood. The mechanic can bring his skill to his work, his deft fingers and trained eye, and leave all else behind. The lawyer even may bring only his legal acumen and his ready wit and fluent tongue. The physician, like the clergyman, must bring himself. His word, his look, his touch, his manner have their part in the problem he is called to solve, as much as, often far more, I think, than his prescription."—"What I want to bring out especially is that since this is the law in

the case, all other things being equal, the best man, and I use the words in their broad manly sense, without cant or pietism, the best man is the best doctor."—"I have knelt by the sick bed, side by side with one of the most famous physicians of this country, when he told me frankly, 'there is nothing more that we can do, but if you can impress upon her that she must not die; that in the name of God it is her duty not to die, for her husband's sake and her children's, there may be hope.' There was no miracle about it; you can explain it by purely natural causes, as I do; but the glazed eyes opened, the relaxed hand clasped mine as I prayed; a strong amen from the pale lips answered the appeal, and the revulsion took place, and the dying is alive in rosy health to-day."—"The high dignity of the physicians' calling lies in this, that there is a soul there, in that feeble or pain-smitten body, and that he is called to deal with that; that his ministry is to that, and often to that alone; by no means only to a stomach, a pair of lungs and a liver."

We have given these remarks at some length because they serve to show that all men do not look upon the profession of medicine as a mere business, to be governed only by the same laws as those which govern horse doctors, merchants, farmers, mechanics, etc.

DR. STILES KENNEDY, of St. Louis, Mich., desires the following numbers of the *Detroit Review of Medicine and Pharmacy*, viz: of Vol. VI, Nos. 1, 3 and 5; of Vol. VII, Nos. 4 and 10; of Vol. VIII, Nos. 7 and 10. If any person has the above to sell he will find it to his advantage to communicate with Dr. Kennedy or the publisher of the DETROIT LANCET.

Memoranda.

The Registrar General's return shows that in England males are on the increase and females are decreasing. In 1879 the number of boys born was 442,289, while the girls only numbered 433,577. Further, the number of females who died exceeded the males by some 30,000.

It is said that in France, still-births, illegitimate births and crime generally have steadily increased during the last thirty years.

Dr. Elsberg of New York had a patient die from general cutaneous emphysema, following the introduction of an œsophageal sound, for the relief of a stricture of the œsophagus. On the autopsy, he found a rupture of apex of the right lung communicating with the pleura but not with either trachea, larynx or œsophagus.

The pages of *Gaillard's Medical Journal* are now double, a valuable addition to the ease of reading. We wish that in some way the publisher could be induced to change the cover to some color less painful to the eye.

Of the \$3,103,289 in benefactions received by the educational institutions of the United States during 1878, the regular schools of medicine received only \$4,662.

The Health Commissioner of St. Louis says that the privilege accorded the students of the several colleges in that city of attending the several city hospitals has become a nuisance to both patient and hospital authorities. There are seven medical colleges in that city, and the students of each have equal advantages.

Little, Brown & Co., of Boston, announce the early publication of Dr. Antoine Magin's *Work on Bacteria*. It is translated by George M. Sternberg, M. D. The important relation of Bacteria to our modern medical thought will render the American issue of this work of especial interest to the English reader.

The Michigan State Board of Health held a sanitary convention for popular education in sanitary matters at Flint, Mich., January 25 and 26, 1881. From the reports thus far received it seems to have been a great success. The value to the people from such conventions cannot be too highly estimated. Indirectly the value to the profession is quite as great. By some such process only can the popular mind be prepared so as to comprehend the importance of a real scientific physician, and to give him a hearty support.

A bill is now before the Congress of the United State at Washington, "In support of a proposed international Commission to agree upon standard tests of color-blindness and visual power in navy and merchant marines, and standard requirements for these faculties." Dr. B. Joy Jeffries, of Boston, Mass., would be glad to receive any information, private or public, bearing upon the subject.

In his late work upon the ear, Dr. Buck says that "Every ear-ache should be considered as the beginning of what later may prove to be a fatal disease. It should receive early and constant attention from a physician who is able to examine the ear with speculum and reflected light." Never were truer words spoken.

On the first of March Prof. Chas. H. Stowell, M. D., will issue at Ann Arbor, Mich., a journal entitled *The Microscope, and its relation to Medicine and Pharmacy*. It will appear bi-monthly, contain thirty-two pages of new matter each issue, be issued each alternate month. It will deal especially with the microscopical appearances of new drugs, adulterations and their means of detection, and the microscopical appearances of the various tissues and secretions of the body in health and disease. The journal will be illustrated.

It is said that seventy per cent. of the labor cases of Cincinnati are delivered by midwives, for the most part very ignorant.

The library of the College of Physicians and Surgeons of Philadelphia now contains 23,288 volumes. The library of the New York Academy of Medicine contains over 17,000 volumes, and receives 122 current American and European medical journals.

Dr. William Pepper has been elected Provost of the University of Pennsylvania. It was believed that his energy and ability would actively bring the University's needs to the attention of the public. In short, the University wants more money and Dr. Pepper is supposed to be the best man to raise it.

Dr. Julius Vogel is stated to have died of heart rupture. He was Director of the Medical Clinique, and Professor of Special Pathology and Therapeutics at Halle.

It is said that the late Archibald Gibson, Second Lieutenant of the U. S. Cavalry, died from inflammation of the brain, induced by an accident while he was at West Point. One day while on parade a spider got into one of his ears. Under the rules he was compelled to stand for more than an hour in the ranks. When dismissed his ear was full of blood and it was two days before the insect could be removed. Necrosis of the internal bone followed and finally meningitis.

The Tennessee Legislature contains thirteen doctors.

On Jan. 13th, Dr. J. L. Vattier of Cincinnati, Ohio, died. He was born in that city Oct. 31st, 1808, the oldest physician born there, and one of the oldest inhabitants.

It is stated that a new medical school is to be started in Philadelphia during the coming summer. Further details are promised soon.

Concerning the relation of catarrh to consumption, Dr. Alonzo Clark says: "I do not think that either nasal or bronchial catarrh ever causes phthisis, but it has appeared to me that those who are predisposed to phthisis have catarrh of the air tubes oftener than others, and that their coughs are more protracted. It is so common for phthisical patients to say that their cough began with a cold that I early began to cross-examine them on the point of "cold," and it has been very rarely that their impressions have been verified, not oftener than the chances of the occurrence.

It is said that small-pox is so increasing in Chicago as to stir the people up to a wholesome desire for vaccination.

An examination for three resident physicians for the Western Pennsylvania Hospital, to serve for one year from April 1st, 1881, will be held at the hospital, Pittsburg, Pa., on the fourth Wednesday in March.

The Louisville *Medical News* and its namesake the Michigan *Medical News* are greatly exercised because of the suggestion that an eminent Scotch alienist so occupied his patients as to render them unusually docile. It has always seemed to us that when a doctor failed to occupy his patients in one way or another he soon ceased to have any patients to occupy him. In short he will fail in his work, be it that of a general practitioner or of alienist, who cannot impress his personality upon those who seek his advice, and cause this impression to last, at least during the interval between visits. A master of men occupies them in just so far as he is master. His mastery depends upon this occupancy. We are astonished that such able journalists as those to whom we have alluded are not aware of these facts. A chapter on the nature of mind and matter is not in order here and now, but surely the average physician cannot be ignorant of the indisputed facts upon which the above commonplace statements rest.

Dr. Henri Nachtel is endeavoring to introduce into Paris the ambulance system of New York. He will be remembered as the agent by which the night medical service system of Paris was introduced into New York.

It is said that Prof. Stilling, of Strasburg, has demonstrated the existence of a spinal root to the optic nerve. It passes from the external corpus geniculatum and winds between the columns of the crus cerebri and thence passes to the pons. Thence it appears to pass to the medulla oblongata.

A German writer gives a view of his idea of the qualifications needful for a physician, as follows (*Pacific Medical Jour*): "You must bring to your task a clear eye and sharp ears; acuteness of observation and patience for infinite study; an unclouded brain and an iron will strengthened in difficulty and embarrassment, but a warm, moving heart which takes cognizance of all sorrow and sympathizes with it; religious convictions and moral stamina, which resist the seductions of sensuality, money and honors. Besides you must have a respectable exterior; you must be polished in conversation; dexterous with the hands, possessed of health of body and soul. You must have the camel's burthen of knowledge and preserve the freshness of the poet. You must weigh all the tricks of charlatanism, and in the midst of temptation remain an honest man. Remember that on your calling depends everything; it must be your religion and your politics, in fortune and misfortune. Therefore advise no one to be a physician. If he persist in his determination, persist in dissuading him. If he still persevere, then give him your blessing, and if he is worth anything he can put it to use."

Last year the republic of Switzerland enacted a law prohibiting the sale of tobacco to minors under the age of fifteen years, and making it an offence against the law for such to smoke.

A SIMPLE METHOD OF CURING A COLD.—The following is given as the experience of one of the readers of the *Student's Journal*: He boiled a little wormwood and horehound together, and drank freely of the tea before going to bed. The next day he took five pills, put one kind of plaster on his breast, another under his arms, and still another on

his back. Under advice from an experienced old lady he took off all these with an oyster knife in the afternoon, and slapped on a mustard poultice instead. Then he put some hot bricks to his feet and went to bed. Next morning another old lady came in with a bottle of goose oil, and gave him a dose of it on a quill; and an aunt arrived about the same time from Eccleshall, with a bundle of sweet-fern, which she made into tea and gave him every half hour until noon, when he took a big dose of salts. After dinner his wife, who had seen a fine old lady of great experience on doctoring, in High street, gave him two pills of her own make, about the size of a walnut and of similar shape, and two tablespoonfuls of home-made balsam, to keep them down. Then he took a half pint of hot rum, at the suggestion of an old sea captain visiting at the next house, and steamed his legs with an alcohol bath. At this crisis two of the neighbors arrived, who saw at once that his blood was out of order, and gave him half a gallon of spearmint tea and a big dose of castor oil. Before going to bed, he took eight of a new kind of pills, wrapped about his neck a flannel soaked in hot vinegar and salt, and had feathers burnt on a shovel in his room. He is now cured and full of gratitude.

Dr. Andrew Wood, of Edinburgh, Scotland, died January 25. He was celebrated not only as a physician but as a highly cultured scholar. Although seventy years old, he was actively engaged in his duties up to the very moment of his death. Literally he died in the harness.

An excellent method of preparing hot fomentations is given by Dr. Neal in the *Brit. Medical Journal*. The flannels are merely placed in the steamer of an ordinary potato steam kettle; they quickly become thoroughly permeated by the steam, when the kettle is placed on the fire, and can be readily changed without any fear of scalded fingers during the attempt to wring them out sufficiently dry as in the ordinary method.

At its late meeting the New York State Medical Society elected as its President, Dr. Abram Jacobi. An excellent selection.

THE ACCURACY OF CLINICAL THERMOMETERS.—Leonard Waldo, astronomer in charge of the Winchester Observatory of Yale College, has issued the following card to the medical profession: "The competi-

tion of business, coupled with the entire absence up to this time of any large observatory in this country paying special attention to thermometry, to which authoritative appeal could be made, has so affected the manufacture of thermometers for medical purposes, that it seems necessary to issue a card briefly indicating the errors commonly found to exist, and to explain why, in this case, the representations of the dealers may be at fault through the want of a proper understanding of the subtle errors to which medical thermometers are liable.

"Too great a desire to economize time, good material and skilled labor has led, in the making of thermometers, to the following faults: (1) The graduation is sometimes started from one point of the scale, near the normal, and the size of the capillary tube is guessed at. No upper point being fixed by the maker, the higher graduations may be erroneous to the extent of several degrees. (2) Too much air separating the index from the column of mercury causes the index to rise with a jerky motion; air above the index forces the index down when the thermometer is taken away from the body. In some thermometers errors from this cause amount to two degrees at high temperatures. (3) New thermometers increase their readings rapidly during the first months after manufacture, so that instruments which were right when made may change their indications as much as two degrees within a year.

"It will be seen that these errors are not such as the dealer can readily detect. Even in those cases where a dealer is provided with a standard thermometer with which comparisons could be made, it is a difficult matter to determine the errors of the standard itself, and the unsupported representations of dealers and druggists therefore, though made in perfectly good faith, cannot, from the nature of the case, afford the physician satisfactory evidence that any thermometer he may buy is not affected with errors, which, in many instances under our observation, have amounted to several degrees.

"Following the example of the Royal Society's Observatory at Kew, at which during the past year upwards of five thousand thermometers were examined, this observatory has established a department to which any physician or other person may send

thermometers by mail or express, and, upon the payment of a small fee, receive certificates of their exact errors. The facilities are such that there is no good reason why physicians should not buy their new thermometers furnished with the Yale certificate by the dealers; in those cases where no certificate is furnished the uncertainty may amount to two degrees. It should be remembered that thermometers which the physician has had in his possession for many months are certain to have had the requisite seasoning, and, therefore, an old thermometer with a recent certificate is more valuable than a new one, or one about whose age there is doubt.

"The observatory has been called upon within three months to certify about seven hundred thermometers from various parts of our country; the results of this work have demonstrated the gross inaccuracy of the cheaper clinical thermometers as commonly sold, and seem to render expedient the publication of this card, calling the attention of physicians to these errors and the great difficulty of detecting them except with the appliances of an observatory devoted to this work."

NEW HAVEN, Conn., Feb. 1, 1881.

Editor's Book Table.

The Books Noticed in these Pages are for Sale by THORNDIKE NOURSE, Detroit, Mich.

Bosworth on Diseases of the Throat and Nose.*

During the past few months we have had occasion to notice in these columns works on the above subjects by Rumbold, of St. Louis, Coomes, of Louisville, Robinson, of New York, and Mackenzie, of London. New York now comes to the front with a second work. From all this it is apparent that the "throat and nose" is not suffering from lack of books. The volume before us attempts to place at the service of the profession the results obtained from the observations and treatment of over eight thousand recorded cases studied during a period of about ten years. From the evidence presented, we are ready to admit that the author has fairly represented both his successes and his failures. The book strikes us as an honest one and written for an honest purpose. In describing special

* A MANUAL OF DISEASES OF THE THROAT AND NOSE. By F. H. Bosworth, A. M., M. D. New York: William Wood & Co., 1881. Cloth, pp 487.

methods of treatment he gives only such as he has personally tested. The classification followed is based on the following views: "An inflammation of a mucous membrane manifests itself in the catarrhal, croupous, or diphtheritic form. A catarrhal inflammation may be acute or chronic, while the latter forms are always acute. A chronic catarrhal inflammation develops certain structural changes in the deep layer of the membrane, which may expend themselves in the membrane proper, constituting a chronic catarrhal inflammation, or they may expend themselves in the glands and follicles, constituting a chronic follicular inflammation. The croupous form of inflammation consists of a morbid process which is attended with an exudation which coagulates; if this is poured out on the surface a false membrane is formed, if it occurs in the glands or follicles, an acute follicular inflammation is the result. Diphtheritic inflammation occurs only in connection with blood-poisoning as in diphtheria."

"These general laws are obeyed by inflammatory affections of the nose, pharynx and larynx, except so far as they are modified by differences in the anatomy of the membrane, and the functions and environment of the part. Certain parts are richly endowed with follicles, as the pharyngeal vault, the lower pharynx, and that portion of the fauces which is called the tonsil; hence in these regions there is an especial liability to the occurrence of follicular disease both acute and chronic. The nasal cavities proper, and the larynx, on the other hand, are especially subject to purely catarrhal inflammation, and not as a rule to the follicular disease." The nomenclature based on these principles dispenses with all indefinite and meaningless names, substituting therefor terms that fully express the character of the morbid process and the elemental constituent of the membrane as well as the region involved. The throat affections of diphtheria and the exanthemata are properly left to the works on practice of medicine. A large number of illustrations explain the text. These are mostly taken from the treatises of Cohen and Mackenzie.

The chapter on "taking cold" is prepared with excellent good sense, and the suggestions both as to treatment and prophylaxis leave nothing to be desired. Equally good is the discussion of acute catarrhal pharyn-

gitis. In the treatment of this disease the author has great faith in the use of gargles of chlorate of potash. The proper method of gargling is as follows: "Take the fluid in the mouth, throw the head back and commence the process of swallowing it, arresting the act, however, just at the point where the voluntary muscles act; that is, the patient should attempt to swallow the fluid, but should stop before the act is complete, and at a point where it is possible for him to expell it again. In going through this procedure it will be found that the fluid can easily be allowed to pass completely into the pharynx, and down to a point where it will come in contact with its posterior wall, where it may be allowed to rest for an instant and can be rejected without its passing into the stomach."

As among the causes of Chronic Catarrhal Pharyngitis he reckons tobacco only in so far as it produces gastric or cardiac disturbance. Alcohol he thinks acts both directly on the membrane and indirectly by causing gastritis. Dyspepsia and all disorders attended by a derangement of the functions of the stomach are important causes of the disease under consideration. The most frequent of all causes is nasal catarrh. The treatment recommended is to cleanse the parts and then apply a weak solution of nitrate of silver by means of spray. Any large vessels are destroyed by a red hot wire. Of course the original cause must be removed if possible. We have not space to further call attention to special points here presented. All is presented in a scientific manner, as of one who has something to say that will prove helpful to others. The style of the writer is very pleasing. The tasteful manner in which the publishers have done their task leaves nothing to be desired.

Flint's Practice of Medicine—Fifth Edition.*

Flint's practice of Medicine has for many years been before the medical profession. Its extensive sale attests the practical estimate placed upon it, as doctors are not given to the purchase of books other than such as are helpful to them in their daily work. In

*A TREATISE on the Principles and Practice of Medicine. Designed for the use of practitioners and students of medicine. By Austin Flint, M.D. Fifth edition. Revised and largely re-written. Philadelphia: Henry C. Lea's Son & Co. 1881. Pp. 1,150. Cloth, \$5.50; leather, \$6.50; half Russia, \$7. For sale by John Willyoung, Detroit, Mich.

the edition before us, we find the additions so numerous and the re-writing so extensive as to really constitute a new book. The author has associated with himself in the revision Dr. William H. Welch. To him was committed the task of preparing the chapters on the general pathology of the solid tissues and blood. He also revised the descriptions of the anatomical characters of the diseases considered elsewhere. In these parts we find a condensation of the essential facts pertaining to general and special pathological anatomy, as far as it relates to the practice of medicine. In other parts of the volume, we notice a new section on diseases of the hæmatopoietic system, the classification of diseases of the nervous system on an anatomical basis rather than a symptomatic one, a fuller discussion of several diseases and the addition of several not considered in former editions. In the description of individual diseases larger space is accorded to the morbid anatomy, including histological appearances, and to the pathological character. In the matter of treatment we find a fair presentation of all that has proved of positive service in the past. Altogether it is a work of which the author and the American profession can well afford to be proud. In its present form it is undoubtedly the best work on general practice of medicine for the general practitioner that we possess. It is the ripe fruit of a long life spent in the constant study of these subjects, a life of more than ordinary power and more than special adaptation to the special work of a teacher—a life rounded out with those qualities which make the very best type of a physician—a life that has a manhood long and broad and deep enough to include the scholar, the close, untiring clinical student and the practical physician. The power of such a life for good in the profession is simply incalculable. The publishers have issued the volume in superb form.

Harrison's Lectures on the Surgical Disorders of the Male Generative Organs.*

The second edition of these lectures is considerably more extensive than the former one. The latest views and operations are introduced as approved or disproved by the author's experience. His large observation

*LECTURES on the Surgical Disorders of the Urinary Organs. Delivered at the Liverpool Royal Infirmary by Reginald Harrison, F. R. C. S. Second edition, considerably enlarged. London: J. & A. Churchill. Cloth, p. 399.

in this class of disorders renders his results of more than ordinary value. The numerous lithographs and wood cuts of original specimens commend themselves to all students of this branch. First class press work on first class paper shows to the best advantage in the clear open type, and renders the labor of reading the least possible.

Nearly every surgical disease of the male generative organs is dealt with in the way called for by the needs of a clinical teacher. Stricture from its frequency and importance occupies eleven lectures. The views of Otis as to the dimensions of the urethra are fairly presented. Indeed the writer seems unusually familiar with work performed by Americans in this department. Sayre, Van Buren, Keys, Bumstead, Bigelow, etc., etc., are by their writings well represented in the volume before us. He believes that Dr. Keyes has demonstrated that "mercury in minute doses is tonic in all cases where it can be digested in syphilis or out of it, continued for a short or a long time." Especial attention is directed to the clinical evidence showing that the use of mercury often accomplishes excellent results in cases of stricture complicated with syphilis. The injuries of the urethra are very fully discussed and illustrated by actual cases.

The enlargement of the prostate gland in old men receives careful consideration. In advising old men troubled with this affection, the author lays stress upon the following points: (1) Avoid being placed in circumstances where the bladder cannot be emptied at will. (2) Avoid checking perspiration by exposure to cold and thus throwing additional work on the kidneys. In a climate like ours, elderly persons should both in winter and summer wear flannel next to the skin. (3) Be sparing of wines or of spirits exercising a marked diuretic effect, either by their quantity or quality. Select those which promote digestion without palpably affecting the urinary organs. A glass of hot gin and water, or a potent dose of sweet spirits of nitre, will not do anything towards removing the residual urine behind the enlarged prostate. (4) Be tolerably constant in the quantity of fluids daily consumed. As we grow older our urinary organs become less capable of adapting themselves to extreme variations in excretion. Therefore, it is desirable to keep to that average daily con-

sumption of fluids which experience shows to be sufficient and necessary. How often has some festive occasion, where the average quantity of fluid daily consumed has been largely exceeded, led to the over-distension of a bladder long hovering between competency and incompetency. The retention thus caused, by suspending the power of the bladder, has been the first direct step in establishing a permanent, if not fatal condition of atony or paralysis of the organ. (5) It is important that from time to time the reaction of the urine should be noted; when it becomes permanently alkaline in reaction, or is offensive to the smell, both necessity and comfort indicate the regular use of the catheter. If practicable the patient may be instructed in the use of this instrument. (6) Some regularity in the time of performing micturition should be inculcated. The advantages of this are as great as regularity in evacuating the bowels.

In short, as we cannot arrest the degenerative changes in the prostate, by which it becomes an obstacle to micturition, it is of the first importance that every means should be taken to compensate for this by promoting the muscularity of the bladder and thus prevent its being atrophied or paralyzed either by accident or improper usage.

In cases of chronic cystitis, when all other means have failed, the author says that he has been especially struck with the extreme rapidity with which pus has disappeared from the urine under the use of chlorate of potash. It is best prescribed in the proportion of half an ounce in a pint of water, a tablespoonful being taken every two or three hours. In other cases five minims of turpentine combined with mucilage, taken two or three times a day, is often of great value. He endorses Dr. Johnson's claims to the value of an exclusive milk diet both in acute and chronic cystitis.

The process of formation of stone is dwelt upon at some length; while he admits that the precipitation of phosphates may be the first step in the formation stone, he claims that it cannot be the only one. In seeking to unfold this he directs attention to the observations of Rainey and Ord. These show that some salts in the presence of a colloid material, such as gum or albumen, yield certain bodies having the peculiarity of adhering not only to existing surfaces, but

also to each other in laminar series. In the urine may be observed urates, presenting an appearance precisely similar to these peculiar forms. The existence of an organized material partaking of the nature of a colloid has been demonstrated as existing in a very large proportion of urinary calculi. As regards the simultaneous occurrence of this colloid material and uric acid or salts in the urinary passages, there is every reason to believe that it is not very infrequent. It is suggested that hard waters tend to produce stone by their direct irritation of the urinary passages. This irritation increases the quantity or alters the quality of the mucus secreted in the urinary tract, and thus furnishes the colloid requisite for the aggregation of the normal inorganic constituents of the urine by molecular coalescence. Mr. Cadge tells us that the frequency of stone in children will be found in strict accordance with the difficulty of procuring milk. The soothing effect of milk in a variety of forms of irritation of the urinary passages is now generally admitted. Bigelow's method of operating for stone is handsomely endorsed by the author. Altogether the work is replete with valuable clinical observations and suggestions. Those interested in this branch of surgery will be profited by Dr. Harrison's presentation of his work.

Transactions of the American Medical Association for 1880.*

This portly volume contains eleven hundred and fifty-three pages of text, besides one hundred and thirty-one pages of names of members. This list gives the names by States, the addresses of each, and the years of attendance. As we examine this volume we are sure that it in no true sense represents the best or really characteristic thought of the American medical profession. There are some good articles in it, but they are so obscured by a mass of stuff intended simply to advertise its authors that it is difficult to find them. It cannot be too strongly insisted upon that a committee should have exclusive power to prune the material presented to and read before the several sections. The rules governing the sections are good enough, and if lived up to would really do all that is required. But they are not in any sense lived

up to. Among the reasons of this are: 1st. The chairmen and secretaries of the sections are usually as suited for their work as drakes are to lay eggs. They utterly lack, as a rule, both the general knowledge and the general training essential for its proper performance. 2d. They are usually innocent of any knowledge of the special requirements of officers of sections. 3d. Lastly, they are deficient in the stamina needful to carry out what regulations they are familiar with. We see no way out of the constant disgracing of the profession by such volumes as the one lying before us, except the reference of all articles to one carefully selected and trained committee, with instructions to sift out all but pure wheat and return the chaff to the several authors.

We would prefer the existing regulations if only they could be enforced, as then the sifting would be done before the meeting and the earnest men in the sections be spared the infliction on their patience of trashy papers.

The volume is issued with the usual care and neatness and accuracy of our permanent secretary, Dr. Atkinson.

Clowes' Elementary Treatise on Practical Chemistry.*

As an elementary treatise on practical chemistry in colleges, and the very best class of high schools, this work is undoubtedly a success. Directions are so fully and clearly given as to reduce to a minimum the assistance required from the teacher. Lengthy theoretical explanations are avoided, as these are best studied in theoretical text books and lectures. The analytical reactions and methods seem selected with great wisdom for the purpose of helping beginners. It seems to us a great advance upon many other books on the same subject. The whole subject of chemistry has become so extensive that to become at all familiar with it requires long and constant study. A certain amount of knowledge is absolutely necessary to every well trained medical student, and to every well educated man. Hence, he is a common benefactor who really

*AN ELEMENTARY TREATISE on Practical Chemistry and Qualitative Inorganic Analysis. Specially adapted for the use of the laboratories of colleges and schools, and by beginners. By Frank Clowes, D. Sc. With illustrations from the third English edition. Philadelphia: Henry C. Lea's Son & Co. For sale by John Willyoung, Detroit. Pages, 372. Price, cloth, \$2.50.

*THE TRANSACTIONS of the American Medical Association. Vol. XXXI. Philadelphia: Cloth. 1880.

renders this knowledge accessible. The amount of practical knowledge that can be obtained from this little book will astonish those who have not thought of it

Third American Edition of Bryant's Surgery.*

Bryant's Surgery has been before the profession more than nine years. In spite of the numerous rival works in the market it was most cordially welcomed, and has never lost its hold upon both practitioners and students. The numerous illustrations, prepared specially for it from the vast museums of Guy's Hospital, lent a charm to it as well as added to its originality. Then and now the author has a very happy way of rendering very emphatic the essential parts of his subject. In short, Dr. Bryant is a capital teacher, especially with his pen. His use of language has been much criticized, but the readers of his book imbibe sound principles of surgery from it. This is, after all, the best test of a didactic work. Dr. Roberts has introduced much new matter pertaining to the practice of American surgeons. This matter is enclosed in brackets. In its remodeled shape it is worthy of all the confidence possible to repose in any book of its scope.

Wilson's Easy Lessons in Sanitary Science.†

The simple yet accurate style especially fits this little work for the needs of the masses of even intelligent people. The matter is so selected and so arranged as to interest even the most casual reader. Yet it is adapted to the wants of sanitary engineers and members of boards of health, farmers and legislators. It discusses "Land Drainage," "Drainage for the Farmhouse and of the Village," "The Drainage of Cities," and "Something about Plumbing." We wish the author had continued his lessons farther. Many subjects yet remain for him to bring before the people in an attractive, convincing light. For what he has given we tender our thanks in behalf of a suffering ignorant humanity.

*A MANUAL OF SURGERY. By Thomas Bryant, F.R.C.S. Third American, from the third revised and enlarged English edition. Edited and enlarged for the use of the American student and practitioner by John B. Roberts, A. M., M. D. With seven hundred and thirty-five illustrations. Philadelphia: Henry C. Lea's Son & Co. 1881. Pp. 1,005. For sale by John Willyoung, Detroit.

†DRAINAGE for Health or Easy Lessons in Sanitary Science, by Joseph Wilson, M. D., Medical Director, U. S. Navy. Philadelphia: Presley Blakiston, 1881. Cloth; pp 68. Price \$1.00

Abstracts from Exchanges.

Prepared by Judson Bradley, M. D., Albert B. Lyons, M. D. and E. A. Chapeton, M. D.

Physiology.

PHYSIOLOGY OF ANÆSTHESIA.—W. C. Barrett, M. D., D. D. S., (*Dental Cosmos*, Dec., 1880) writes: "There are a number of states which may be induced in which, while the condition remains, the patient is insensible to pain—such as coma, syncope, anæsthesia and sleep. The first three are pathological; the last is the normal condition of recuperation and recovery of wasted nerve force. All of these phases or conditions are dependent upon the nervous supply and are induced by normal or abnormal nerve currents. The mysteries of nerve force or of nervous supply have never yet been bared to human knowledge. We experiment and deduce so called laws, but those laws are not general. They have too many exceptions. Of some agents we know that their action is entirely reflex and that the nervous system is affected through certain definite organs. But there are others of which this seems not to be true, and the scientific world is now engaged in the effort to solve the mysterious problem. So far, comparatively little progress has been made; since the days of Claude Bernard, who advanced the theory that such agents as directly affect the nervous functions do it by a coagulation more or less complete of the protoplasmic elements of nerve tissue, nothing but barren hypothesis has been advanced. Narcosis or anæsthesia may be considered as a state of paralyzation of the sensory nerves with complete stupor. It is the suspension of sensation and may be produced by a number of agents, the most complete and powerful of which is hydrocyanic acid. Aside from the direct action of drugs other agents or conditions incite anæsthesia. In warm blooded animals anæsthesia is produced by lowering the bodily heat, and in the cold blooded animals by raising the temperature.

Experiment 1.—Place a frog in a vessel containing water at 100° Fah., and it soon exhibits the same inertia and desire for sleep as the freezing mammal, and in a little time becomes quite insensible. If it be now removed to cold water it speedily recovers, but, if long continued in the warmer fluid, it dies. The most common agents used to pro-

duce anæsthesia are nitrous oxide gas, chloroform, sulphuric ether, and bromide of ethyl. How do these agents produce their characteristic effects? This is a question which has not been satisfactorily answered. But it is certain that anæsthetics are amenable to that law which is universal in therapeutics—that to produce its characteristic effect a drug must be first introduced into the system and that the method of its diffusion is through the blood.

Experiment 2.—Expose the lumbar nerves of a frog by raising the point of the sacrum. Pass a ligature around the whole body, excluding these nerves, and then inject the posterior extremities with woorari, or strychnia, or chloroform. It will be seen that the anterior extremities are not paralyzed or convulsed, showing that the influence is not extended through the nerves. To produce anæsthesia it is equally true that there must be a sufficient quantity of the anæsthetic in the blood at one time. Ether and chloroform are eliminated almost entirely by the pulmonary mucous membrane.

Experiment 3.—Into the peritoneal cavity of a cat was very slowly injected 3ij of Squibb's chloroform and the animal was but little affected. At another time 3i of the same was quickly injected and complete narcosis ensued. When the drug is administered slowly the immunity is due to the fact that it is eliminated before it has time to produce its characteristic effect. Not enough is found in the blood at one time to induce anæsthesia. The most common and characteristic effects of anæsthetics are produced when their vapor is inhaled, because by this means it is most readily introduced into the blood. The immense surface (about 1400 square feet) presented in the lungs of man brings the blood in osmotic contact with so much of the vapor that the pulmonary circulation is completely charged with it and is carried immediately to the heart and thence to the extremities without any opportunity for its elimination. In this way anæsthesia is readily produced. But inject the anæsthetic into the veins, but little effect is produced, because after reaching the heart it goes to the lungs and is eliminated so rapidly that the arterial circulation is not reached.

Experiment 4.—Into the jugular vein of a cat previously anæsthetized inject 3i of ether sulph. The animal will soon recover

from the anæsthesia, while if the same amount of ether be injected into the carotid artery it will deepen the anæsthesia. We may consider it demonstrated that the anæsthetic must be found in the arterial blood in sufficient quantity at one time in order to produce its characteristic effect. Now the question arises, does the serum of the blood hold it in solution, or is it conveyed by the blood corpuscles? If the answer be in the serum, that solves the problem at once. But microscopic examinations show that anæsthetics change the character of the blood corpuscles. Carbonic acid changes bright red blood to a dark color. Carbonic oxide changes venous blood to a bright red. If ether be mixed with blood it turns it to a dark purple color. It prevents its re-arterialization; it dissolves the blood corpuscles and sets free the hæmatine. Chloroform turns the blood to a bright scarlet.

Experiment 5.—Add the vapor of chloroform, ether, carbonic acid or carbonic oxide to fresh venous or arterial blood and the change is readily manifest. Alcohol causes the blood to assume a brick-red color and air will not again arterialize it. To show that ether and chloroform dissolves the blood corpuscles, place a drop of blood on a microscope slide and add a drop or two of ether or chloroform; place the whole under a half-inch objective. Ether acts more rapidly than chloroform.

Experiment 6.—Procure a quantity of defibrinated blood, anæsthetize a dog and open the thorax. Bleed him to death by severing the carotids or the aorta. Quickly dissect out the pulmonary vein and artery and sever them, and charging a syringe with the defibrinated blood, inject in the pulmonary artery until it comes out at the vein to clear the lungs of coagula; then remove the lungs and part of the trachea, into which insert and fasten the nozzle of a bellows. Charge the syringe again and force it through the lungs. No change in color will be observed. Repeat this, directing the assistant to keep the lungs filled with air. It will now be seen that the blood is arterialized or changed to bright red. If, instead of air, the bellows be charged with the vapor of nitrous oxide, or ether, or chloroform, the peculiar effects of each specific vapor will be observed. Anæsthetics, then, have the power to modify the ability of the blood corpuscle to absorb

oxygen. During sleep, as in anæsthesia, there is primarily hyperæmia of the brain.

Experiment 7.—Anæsthetize a healthy dog and over one of the hemispheres of the brain make a crucial incision through the scalp. Dissect the flaps back and trepan, using great caution that the dura mater be not injured. Secure the flaps and allow the animal to recover. After two days, which will be ample time, expose the dura mater and again anæsthetize the dog. Coincident with the excitement stage of anæsthesia there will be observed a distinct tumor of the dura mater. When anæsthesia is fully established the reverse will be observed and the dura mater is depressed where before there was a protrusion. After observing this phenomenon carefully, remove the dura mater and again secure the wound by means of the flaps of the scalp. After another interval of time, expose the brain and anæsthetize the dog. The periods of hyperæmia and anæmia can now be observed with facility. Asphyxia presents many phases similar to those of anæsthesia, and it is important that we understand the difference between them. Asphyxia is the result of a deprivation of oxygen and its effects are mainly manifest on the medulla. The lungs have nothing to do with the desire of a suffocating animal for breath, neither has the blood except as it affects the medulla by carrying, or its failure to carry, the oxygen to that nerve centre.

Experiment 8.—A dog was anæsthetized and a bellows ligated in the trachea so as to entirely control the supply of air. As long as the lungs were kept supplied with air it is evident that there would be no effort at breathing on the part of the dog. An artery was opened and the dog bled so nearly to death that the heart nearly stopped beating. Notwithstanding the fact that the lungs were now kept fully inflated *the dog now gasped for breath*, because from the lack of blood corpuscles to carry it, the medulla was deprived of its oxygen. A tube from the carotid artery of another dog previously anæsthetized, was now connected with the jugular vein of the first animal, and transfusion accomplished while the regular lung inflations of normal breathing were kept up by the assistant who worked the bellows in the trachea. When functional activity was fully re-established and the normal condition of the medulla restored, the thorax was opened

and the lungs and heart exposed. The pneumogastric nerve was now divided, the left ventricle of the heart opened and the pulmonary artery ligated, cutting off effectually all blood supply to the lungs. Both heart and lungs were paralyzed, and the lungs ligated, yet *the dog gasped for breath*. As long as the medulla is supplied with oxygenated blood there is no effort to struggle for breath, even though the other organs may be deprived of it, but the instant that this nerve center is left without its needed supply of oxygen there is a convulsive effort to breathe.

Experiment 9.—A bitch two or three months pregnant was anæsthetized and the uterus opened, exposing the quarter-grown foetuses to the air. They manifested some uneasiness but there was no symptom of independent existence in either until the umbilical cord of one was severed, when it was noticed that there was a convulsive effort to breathe. This was constant with five of them. The sixth was not severed, but after the death of the mother and the stoppage of circulation, this one also made efforts to breathe.

In asphyxia the blood is dark in color and there is the same anæmic condition of the cerebrum as in anæsthesia. The states of asphyxia and anæsthesia are then analagous in many characteristics, but there is a wide difference in their pathology; for while one is but the deprivation of oxygen with the consequent characteristic effects upon the medulla oblongata, the other has added the positive presence of a toxicological agent which induces an added train of symptoms. The one is a cessation of function in the anatomical elements, the other is but a partial suspension of some of them. There are the same or analogous changes in the blood corpuscles, and yet the pathological condition is widely variant. The one is the complete absence of oxygen from the medulla, and the other is the possible partial oxygenation in the tissue elements. These are, therefore, two conditions analogous in their physical manifestations, both either produced by or attended with changes in the blood corpuscles, yet one is entirely inconsistent with continued functional activity, while the other is compatible with life even if indefinitely prolonged. This would seem to indicate that the suspension of sensation attend-

ant upon both was due to widely different causes. At the outset of this paper, on the authority of Snow and others, I spoke of carbonic acid as an anæsthetic. I did not desire to draw a distinction until it became apparent. We now see that the two states, asphyxia and anæsthesia, are not identical. Their only resemblance is that both are conditions of insensibility. After what has been shown we may define an asphyxiating agent as one which, while inducing entire unconsciousness is at the same time incompatible with life, but an anæsthetic is an agent which may be introduced into the blood in sufficient quantities to produce insensibility to pain, and yet is not incompatible with continued existence; while asphyxia is demonstrably a change in the blood-corpuscles it seems that anæsthesia is due to some profound and specific effect produced directly by the agent itself. These conclusions are directly opposed to those of Snow, Sansom, Austin, and other modern physiologists who believe both asphyxia and anæsthesia to be due to modified neural nutrition.

Having spoken of the changes wrought in the hue of the blood in asphyxia and anæsthesia, it is now time to say that the alterations in color are not necessarily due to any particular agent. They are merely conditions of form of the blood corpuscle, and are induced by oxygen, carbonic acid, ether, chloroform and all other agents that swell out or contract the blood corpuscle. Thus, carbonic acid distends the blood corpuscles, and carbonic oxide contracts them. Ether distends, and chloroform contracts them, so that ether renders the blood dark and chloroform renders it light-colored. Changes of color, therefore, are not necessarily due to the presence or absence of oxygen. It is not reasonable to suppose that the profound effects of anæsthesia are produced by the change in form of the blood corpuscle. It cannot well be a lack of oxygen, for that is simply asphyxia. We must then conclude that the anæsthetic carried by the blood corpuscles produces a profound impression directly upon nerve tissue, paralyzing it for the time, and rendering it incompetent, to perform its proper functions. The progression of anæsthesia is from the extremities toward the central ganglia, and only the sensory nerves are paralyzed. These facts, too, seem inconsistent with the theory that

anæsthetics produce their characteristic effects solely by the change in the nutrition of the anatomical elements of nerve-tissue. Rather does it appear probable that their action is the invasion of a resistless enemy, which, attacking the outposts in its onward march, lays its icy hand successively upon the delicate nerves, and "rocks them in oblivion." Just what this power is, or in what peculiar manner it is exerted, we do not know. We can study it only in the phenomena which it presents. The sensitive plant in the vegetable kingdom has a protoplasmic tissue that performs the office of true nerve tissue. It is as easily anæsthetized as an animal, and presents analogous phenomena when in a state of anæsthesia.

Another reason why it seems incredible that anæsthesia is produced through a change in nutrition is the fact that its agents affect nervous force when ordinary functions and blood circulation has ceased.

Experiment 10.—Remove the whole upper portion of the head of a frog, including cerebrum and cerebellum; open the thorax, take out the heart and lungs and cut off the extremities, leaving only the upper part of the alimentary canal. Two or three may be prepared in this way. Thrust a smooth glass rod through the digestive canal, and place the ends of the rods on steady supports. It will now be found that the remaining portion of the frog will slowly travel along the glass rod, impelled by the vermicular motion of the œsophagus and intestine, and the ciliary motion of the larynx. But if a bell-glass be put over one of the frogs and a sponge wet with chloroform be placed within it, this motion either ceases entirely, or is materially retarded.

Surely this cannot be from any change in the blood corpuscles for their movements have ceased. There is a persistence in nerve function, especially in cold-blooded animals, which does not cease when other functions are lost, but which, true to its law, is suspended by anæsthesia.

Sufficient testimony has been produced to justify doubts as to the correctness of the conclusions of physiologists that anæsthesia is due to an alteration in the blood corpuscles, or to a changed nutrition. As to the character of nerve force, no man can say what it is. It resembles electricity, but it is not that force. It moves too slowly, and the

mere injury of a nerve-filament stops the current, although there is no solution of continuity. The whole subject is a mystery, even to the actual office of the nerves. If we except the nerves that preside over involuntary muscular action, the nerves are not essential to life. Even the severing of the pneumo-gastrics is not immediately fatal.

Experiment 11.—Anæsthetize a dog and sever both pneumo-gastrics. Almost immediately the breathing and the heart beats become irregular, at first increasing in frequency, but later becoming much retarded. The animal will live for some days, and will finally die from other complications than the direct stoppage of the heart through want of nerve impetus.

When we are able to understand the character of nervous force, we shall be better able, at least, to understand the action of anæsthetics.

CHILDREN, THEIR GROWTH DURING THE FIRST YEAR.—Dr. Evetzky, (New York *Med. Jour.*, Feb. 1981,) from a study of the growth of children during the first year concludes: Early childhood is composed of a number of distinct periods, of which the first is the transient period, when the child's nutrition undergoes a change from the normal extra-uterine type. The pathology of this period rests upon the inadequacy of the feeble and imperfect efforts of assimilation to meet the requirements of energetic nutritive processes. The second period is that of normal extra-uterine nutrition. After this there is a succession of three dentition and inter-dentition periods. The pathology of dentition rests upon the irritating influence of teething being transmitted to the nerve centres, producing certain disorders in the general and local nutrition, and leading to a disposition to disease, or constituting the actual morbid processes. During the inter-dentition periods, the child's health returns to a normal state. The growth of the child is not a process by itself, neither is it governed by its own laws but is a faithful and correct representation of the child's general well being. Consequently its great clinical importance should be recognized. As information derived from the weighing of the child relates mainly to the state of the nutritive processes, while the linear measurements give us information concerning the energy of the cellular life, both methods

should be used conjointly in the study of this branch of pædiatric physiology.

Hygiene.

THE ILL EFFECTS OF FOGS IN CITIES.—Perhaps of all cities, London suffers most from fogs and smoke. But as cities in regions that burn soft coal grow older the same sufferings will arise. In its issue for Jan. 22, the *Brit. Med. Journal* presents some interesting facts. In London, the smoke fogs of last year raised the mortality, during their prevalence, forty per cent., and produced an excessive mortality, almost exclusively due to respiratory complaints, which equalled that of the cholera epidemic. The increased mortality is not confined to diseases of the respiratory organs. It is certain that the mere obstruction of the sun's rays, due to the constant pall of smoke that hangs over London, is in itself a great factor in lowering vitality, and in injuriously affecting the standard of health. As an illustration of this lessening of the actinic power of the sun's rays by the fog smoke, Dr. Joseph Rogers says that a bleacher with whom he was acquainted had told him that within quite a recent time, he had been compelled to get his wax bleached at Shepherd's Bush; but that lately he had found the power of the sun's rays so much diminished that it had become necessary to remove his bleaching ground beyond Hammersmith. Similar observations were made last year at the botanical gardens and at the zoological gardens during the dark fogs of last year. It was found that the health of the animals was seriously affected by the darkness; and plants preserved under glass in gardens ceased to grow, and showed evidences of depressed vitality during this period of darkness, from absence of the chemical influence of the sun's rays. It is indeed well known that the etiology which rapidly occurs under such circumstances is accompanied by lowered vitality, of which the coarser representation is lessened by chemical action and depressed physiological activity. Thus in estimating the deleterious effects of smoke fogs, we must consider the loss of light as well as the deleterious influence of the sooty particles and smoke particles diffused in the air.

Climatology.

BROOKLYN, N. Y.—THE RELATION OF ITS CLIMATE TO CATARRHAL AFFECTIONS.—A

committee from the King's Co. Med. Society has made an extended inquiry into the above subject with the following result: (Trans. King's Co. Med. Society.)

1. Brooklyn and New York, by their topography, are well adapted for health, and in the early days of each they were remarkable healthy; when they began to develop into business and home centers, new dangers to health appeared in overcrowding, accumulation of filth, damming up of water courses, and defective sewerage and drainage. As the city enlarged, catarrhs and consumption increase.

2. When Brooklyn began to develop, its growth was so rapid, and its attractions so many, that many business men of New York desired to live there for economy and health. Seeing this, interested individuals attacked Brooklyn with various inuendoes.

3. Catarrhs and consumption are common in both cities, and have been for years, but the prevalence is not any greater, to say the least, than in other seaboard towns, and not as great as in some. By some observers, the affections are believed to be not more prevalent than in some inland cities even.

4. The experience of leading physicians, meteorological records, statistics, and history, show that there is no theoretical reason why there should be much, if any, difference between New York and Brooklyn in the production of catarrhs. New York has a larger proportionate death rate from consumption than Brooklyn, but the city is different; there is proportionately a larger transient population, as immigrants, boarders in hotels and boarding houses, so that it may be partly accounted for in this way.

5. The testimony of physicians shows that there is practically no real difference between the two cities, as a whole, with reference to the prevalence of catarrhs. Exposed situations may assist in causing a localized prevalence. Protected portions of the city tend to diminish the liability to catarrh.

6. A mere change from New York to Brooklyn or from Brooklyn to New York, if accompanied with better food, more healthy and cheerful surroundings, may relieve a catarrhal patient. That a change with or without the above acquirements, from an exposed part of one city, to a protected part

of another, from one house or section in the same, may likewise afford relief.

7. Our seaboard cities, though not in the main considered favorable places of resort for catarrhal and consumptive patients, yet benefits may be derived by coming to them, provided the change is accompanied by increased comforts, enjoyment, better opportunities for treatment and attention to personal hygiene.

8. Though climatic and city influences have much to do with the creations of catarrhs, yet defective heating, lighting, airing, sunning and drainage of houses, with improper views as to air, clothing, bathing and exercise, are the main causes.

Toxicology.

TWO CASES OF CHRONIC NICOTINE POISONING.—The *Inter. Jour. of Med. and Surg.* takes from Archiv f. Psychiatrie, Bd., X., Heft. 1, a report by Richter, of Sonneberg, of two cases of chronic nicotine poisoning. The first case was a man of 47 years, who, after smoking to great excess for some time, suffered from the poisoning for two years and then suddenly succumbed, continuing the smoking all the time in secret. The other, a man of 35 years, was attacked in the same way and for the same cause; but after a time, the symptoms growing worse, he abstained from smoking, and under a course of mild hydropathic treatment, succeeded by the use of the constant current, he recovered rapidly. The symptoms common to both cases were lumbar pains, general lassitude, inability to control the limbs, emaciation, impaired vision, palpitation and feeble action of the heart with pain in region of heart, and hypochondria. The first case suffered severely from dyspepsia, but the second had no gastric symptoms. As a result of post-mortem examination and experimental researches, as well as from ophthalmoscopic appearances, Richter concludes that the principal cause of the symptoms is anæmia of the central organs, produced directly by changes in the blood, and indirectly by poisoning the vaso-motor system, and the changes in nutrition he regards as the result of the same influence on the trophic nerves.

TEST FOR ARSENIC IN WALL PAPER.—Dr. Wm. B. Hills communicates the following as a reliable test to the *Boston Med. and Surg. Jour.*: "Take a sample three or four inches

square (less will suffice with plain paper); cut into small pieces, moisten with concentrated sulphuric acid and heat carefully till the paper is thoroughly charred. Let the charred mass cool, add to it about one fluid ounce of water, grind the black mass fine that the water may come in contact with all parts of it; filter and wash. The arsenic will be found in the filtrate, which is examined by Marsh's test. All chemicals must be free from arsenic." He claims that the nitrate of silver test is useless in most cases, being obscured by other matters in the colors.

EFFECTS OF POISONING BY GLYCINE.—Dr. Leonffree (*Lyon Medical—Brit. Med. Jour.*, Jan. 1, 1881) relates the phenomena observed in several children who had chewed fragments of the root of glycine instead of Spanish licorice root. At the onset they complained of a gastralgic pain; the face became congested and the cheeks reddened, but this redness was transient and gave way to paleness as soon as the children felt nauseated. A few moments afterwards vomiting commenced, consisting first of alimentary matters and then of bile and mucus. The patients then complained of a great feeling of uneasiness; the face was pale and pinched, the eyes sunken and surrounded by blue lines; the pupils were largely dilated, the skin, and especially the extremities, cold; muscular weakness was very marked, and the patients complained of their legs bending under them. Among those who were most ill, an irresistible tendency to sleep was observed. The children complained of chill, the pulse remained at 80, very weak, and in two cases the voice was imperceptible. The capillary circulation was defective, and in two cases whose pulse was hardly perceptible, the extremities were reddened and the face as well as the trunk marbled with blue lines. The respiration was normal and rather slackened than obstructed. There was neither delirium nor convulsion. The intellectual faculties were intact, except for the torpor. The secretions were not disturbed, the skin not presenting that appearance of sweating observed in analogous conditions. The action of the glycine on the intestinal tube was not marked in any of the nineteen cases, except in one girl who purged eleven times. The accidents observed were rapidly counteracted by the administration of hot tea and coffee and the application of hot-water bot-

ties. In one case only energetic friction was necessary to combat collapse and the tendency to sleep. Dilatation of the pupil was the earliest and most constant of all the symptoms. The quantity of glycine chewed by each child must have varied from fifteen to ninety grains. Thus it seems that glycine has markedly toxic properties and that it acts like tobacco.

Action of Medicines.

METHODS OF ADMINISTERING CHLORAL HYDRATE.—Dr. Kane, in *Chicago Medical Journal*, makes some interesting suggestions respecting the use of chloral. When administering chloral we should be certain that it is pure. Bouchet gives the following test as being sufficiently reliable for roughly determining its purity: "By taking chloral in a crystallized, needle-shaped or snow-like mass, it will in all probability be found acceptable; but to be certain of its purity, it must be tested with a concentrated solution of potash. If the chloral is pure, it will color the potash solution possibly a very light yellow, and emit an unmistakable odor of chloroform. If it is absolutely pure, the solution will remain uncolored. If a brown color shows itself, and there is given forth the odor of chloroform, mixed with chloratic vapors, or gases of an acrid and disagreeable smell, it is impure." It should be administered in the majority of cases by the mouth or rectum. If given hypodermically it is apt to produce deep seated and superficial inflammation and abscesses. The intra-venous method is to be used only in the rarest instances and is always dangerous. When chloral is given by the mouth it should always be in solution. I prefer a simple aqueous solution of ten grains to the drachm, and ordering separately *syp. solut.* and let patient add a drachm or two to each dose of the chloral solution at time of taking, and to overcome the irritating effect of the chloral upon the buccal, pharyngeal, and gastric mucous membrane, have patient eat a little something, say a cracker, before taking the dose.

Chloral hydrate is peculiar, in that it acts with about the same rapidity and intensity when given by the rectum as when given by the mouth. It has been found of great advantage to give it in this way, in two classes of cases: 1st, Those where, owing

to some spasmodic or convulsive affection, it is impossible or very troublesome to give it by the mouth. 2d, In case where, from inflammatory affections of stomach or throat, it is not deemed advisable to give this drug by the mouth, owing to the possibility of causing local irritant action. When given as an enema, in pure water, it often causes irritation of mucous membrane of rectum; to overcome this, it may be beaten up with raw eggs and milk. It is best exhibited, however, as a suppository, always bearing in mind that as it is a solvent of fat and cocoa butter, the usual vehicle for suppositories will not answer, unless used in connection with white wax or spermaceti.

Practice of Medicine.

SALICIN IN ACUTE ARTICULAR RHEUMATISM.—Dr. Mathew Charteris, (*Brit. Med. Journal*, Feb. 12, 1881,) gives the following as the results of a careful study of eighty cases of acute rheumatism treated by salicin: (1) In uncomplicated cardiac cases, salicin in doses of twenty-five grains, dissolved in warm water or milk, will lower the temperature in forty-eight hours. (2) When this is accomplished, diminish the frequency of the repetition of the dose mentioned to every six hours; and finally, after two days, stop it altogether, as its further continuance is useless and depressing, and retards convalescence. (3) If the temperature be not lowered at the time mentioned, in all probability the heart is affected; and if such should be the case, the medicine should be countermanded, for it will then in no way diminish the fever. The cardiac complication may not be detected by auscultation at the time; but it will invariably be found that a cardiac murmur exists at the natural termination of the disease. For this cardiac complication, apply a large blister over the region of the heart, and do not allow it to heal quickly. (4) Previously to applying salicin, test the urine for albumen; and if this be detected, and if there be a suspicion of long standing kidney disease, as revealed by the history of the patient, it is probable that the drug may not be properly eliminated from the system. That this is so, can be readily seen by testing the urine at intervals by tincture of the perchloride of iron, when a purple color will be observed, owing to the action of the iron on the salicylic acid. Should this re-

action not be seen, it is well to discontinue the use of salicin. (5) He has never in any case found salicin to cause thirst or delirium. These phenomena may be attributed to impurities in the artificial compound—probably to carbolic acid. Salicin seems to me to have some special action in rheumatism, for it will be found not to lower the temperature in other affections where it is high. Thus, in a case of advanced phthisis, it is inert in large doses, while quinine in similar circumstances exerts its usual antipyretic virtues when given at a different time to the same patient.

POLYURIA CURED WITH ERGOT.—Dr. McClellan, U. S. A., (Louisville *Med. News*, January 22, 1881,) reports a case of diabetes insipidus of several weeks standing, in a man thirty years of age, cured in four weeks by fluid extract of ergot, in one-half drachm doses, given every four hours for the first two weeks and three times a day for the remainder of the time. Seven months after suspension of treatment, he found that the patient passed forty-seven ounces of urine, having a specific gravity of 1020, in a given twenty-four hours.

CORPULENCY REDUCED BY DIET.—Dr. O. B. Campbell, Ovid, Mich. (*Physician and Surgeon*, January, 1881,) was consulted by a man weighing 304½ pounds, concerning pain in the limbs and embarrassed respiration. The limbs were swollen, and pitted deeply upon pressure. There was a slight varicosity, and the urine contained traces of sugar. His normal weight was 180 pounds. Had taken various anti-fat preparations, and gained flesh all the time. By a diet of gluten bread, beef, eggs, tea and coffee without sugar, a minimum quantity of food and a saline cathartic at night, the weight was reduced to 290 pounds in seven days, and to 256 pounds in the first three months. He believes this case to exceed any previously reported in rapidity of reduction. The diet was recommended by the *Physician and Surgeon*, July, 1879.

SHOULD ENTERIC FEVER BE TREATED IN GENERAL HOSPITALS?—Dr. Cormach (*Edinburgh Medical Journal*, Jan., '81), answers this inquiry as follows: (1) Enteric fever is a contagious disease, the contagium of which exists in the intestinal excreta. (2) The contagium is generally diffused by water or milk. (3) Perhaps the

winds may spread the contagium when the sun dried excreta are diffused as dust in the atmosphere. (4) For the safety of the community, cases of enteric fever ought to be isolated at home, in hospitals or where the excreta can be systematically destroyed or disinfected. (5) The gathering together of enteric fever patients in well organized hospitals is neither dangerous to their inmates nor to the inhabitants of the vicinity.

HERPES ZOSTER, WITH CHANGE OF NERVE STRUCTURE.—Chandelux records (*Lesions Nerveuses dans le zona*, Arch. de Phys. norm. et path., No. 76) that the intervertebral ganglia corresponding to the nerves in the region of a long-existing herpes zoster in a consumptive patient, were found to be enlarged and to present numerous dark-colored elevations on their surfaces. The microscope revealed degeneration of the structure with partial sclerosis. In the nerve the number of fibres was diminished, but it was otherwise normal.

UNILATERAL TRISMUS.—The only case of unilateral trismus recorded has been observed by Dr. Thenee, Elberfield, (*Inter. Jour. of Med. and Surg.*, Jan. 15, 1881—*Berlin Klin. Wochens.*, No. 37, 1880). It was caused by an injury to the nasal bones, denuding them of their periosteum, produced by a fall. It was accompanied by facial paralysis of the same side, and continued four days. The other side then became involved and the patient died next day.

FAVORABLE CONDITIONS OF CHRONIC LUNG DISEASE.—Dr. Jas. E. Pollock (*British Med. Jour.*, January 27, 1881) gives these as follows: The more favorable local conditions are first: (1) Well marked induration. The more a portion of the lung is indurated, shown by marked and defined dullness, and the other signs of consolidation, the better the prognosis. The more marked, on the other hand, the signs of cassation and degenerative processes, the worse the prognosis. (2) The single cavity well defined and limited; the other parts of the lung unaffected. (3) The diffused form of the disease, which may be described as exhibiting crepitant sounds over a large surface of the lung, with moderate dullness and slightly impaired movements in a well shaped chest. (4) The existence of extensive fibroid alterations, with well marked characters. Among the general favorable conditions the most im-

portant are the absence of fever and waste. These two symptoms are concurrent in every case. The fever being fed by morbid material from the degeneration of caseous production in the lung is a direct measure of local irritation, and the amount and degree of local irritation may almost be said to be the measure of the patient's danger. Loss of flesh is always an evil symptom, as progressive gain of weight is good. As regards temperature, high maxima and low minima are of bad import. The curve of temperature which is best, is one which, avoiding extreme fluctuation, gradually subsides to low or normal level and remains there, with the slight diurnal variations of health. Next in importance is a fairly sound digestion, absence of hereditary taint, an age past forty-five and a well shaped chest.

SECOND ATTACK OF SCARLATINA OCCURRING TWO DAYS AFTER FULLY RECOVERING FROM THE DESQUAMATORY STAGE.—A. B., male, was admitted to hospital Sept. 25, having been discharged therefrom two days before, when he had fully recovered from the desquamatory stage. He was suffering on admission from vomiting and diarrhœa, was restless during sleep, had a poor appetite and complained of darting pains in the chest and extremities. On the 29th these symptoms had disappeared, but the abdomen was tympanitic, urine scanty but free from albumen. On Oct. 4 a scarlatinal rash appeared on the extremities and spread rapidly over the whole body. The tongue was clean but its papillæ were markedly congested. Temperature, $104\frac{1}{2}^{\circ}$. Oct. 6, patient was again seized with nausea and restlessness, and the eruption was fading from the body, although still very bright on the face. Oct. 27, patient was discharged, fully recovered, the eruption passing through the usual stages of a scarlatinal eruption and completely desquamating.—*American Bi-weekly*, Jan. 1, 1881.

SYPHILIS—ITS CHARACTER AMONG SEAMEN. Dr. Chas. L. Dana (*Med. Record*, Feb. 5), gives a very careful study of the course of syphilis among seamen. From this he concludes: (1) Syphilis as a rule runs a very mild course, indeed, among American seamen, and physically incapacitates them less than either soft chancre or gonorrhœa with their complications and sequelæ. (2) It runs this course often without regular treatment, and

almost in spite of irregular living and unhygienic surroundings. These conclusions tend to confirm the views of those who believe (a) That syphilis is curable, and (b) that this present benignity of the syphilitic poison is due in part to treatment in part to a gradual change, either in the character of the poison itself, or in the organism it feeds upon, or both. (c) That it very often has a tendency to spontaneous cure. The foregoing conclusions are based on the histories of three hundred and seventy-eight cases of venereal disease among seamen.

INTRA-CRANIAL TUMOR—ITS CHIEF SYMPTOMS.—Dr. B. Bramwell (Edinburgh *Medical Journal*, Feb. 8), gives the prominent symptoms of intra-cranial tumor thus: (1) Optic neuritis, and optic atrophy. (2) Headache. (3) Vomiting. (4) Giddiness. (5) Alterations in the motor nerve supply of muscles (spasms and paralysis). (6) Alterations in the sensory nerve supply to the face, limbs or trunk. (7) Psychical disturbances or alterations in the mental state. (8) Phosphaturia, a symptom common to this and many other nervous affections. (9) A voracious appetite. Drs. Lawson and Bevan Lewis say that this symptom often occurs early in the course of the disease.

ON BERI-BERI.—By Stewart Eldridge, M. D., Surgeon to the General Hospital of Yokohama, Japan (*Pacific Med. and Surg. Journal*, December, 1880 and January, 1881.)

(Beri-Beri was recently introduced into San Francisco, California, through the agency of a Brazilian man-of-war.—Ed.)

So many instances are known in history, in which diseases have been transplanted into a virgin soil, there to flourish with an unusual virulence, greater even than the disease shows in its usual habitat, that the fact of the importation of a large number of cases of a disease hitherto unknown in the United States, but recognized elsewhere as prone to extend, as intractable under treatment, as is cholera, and in its severe form nearly or quite as fatal as the latter, should certainly afford matter for serious consideration.

For many years, this disease was believed to be confined to certain parts of India and the Malay Archipelago, but in 1866 Dr. Da Silva Lima, of Bahia, published accounts of out-breaks of beri-beri in several districts in Brazil, where it had existed for a considera-

ble period, and was called "morbus innominatus."

Careful study of the literature of the subject has convinced Dr. Eldridge that beri-beri, the "morbus innominatus" of the Brazilians, and the kak'ké, of Japan, are one and the same. This disease was known in China as long ago as 1821, and was accurately described at that time, but singularly enough it has now almost or quite disappeared from the middle kingdom, and is possibly found only at Amoy, in those parts of China known to foreigners.

The literature of the disease is meagre. It is mentioned in Copland's dictionary, in Aiken, by Woillez, by Johnson and by Martin. Aside from these standard works, the mention of the disease is only found in papers scattered throughout the medical and scientific journals and the transactions of various societies.

Repeating that the kak'ké of Japan is identical with beri-beri, we pass to the clinical history of the disease.

Beri-beri may be briefly defined as a non-febrile disease, endemic, and limited to certain localities, in which it may become epidemic. It manifests itself primarily through the nervous system, by disturbances of sensation, motion and cardiac and vascular control, including extensive serous effusion and localized muscular degeneration; often acute, but exhibiting marked tendency to latency, chronicity and recurrence, and fatal in a considerable proportion of the cases.

The cases divide themselves naturally into acute, sub-acute and chronic.

The acute form may appear without warning, in a subject previously healthy, but as it far more often occurs in the course of a sub-acute or chronic case, it will be best described after the notice of such.

The sub-acute is the most usual form of the disease. The patient usually comes under observation complaining of universal malaise, languor and muscular incompetency, which possibly has existed for some days or weeks. Examination shows that there is a clearly defined and unmistakable diminution, or even almost total loss, of the sensibility of the skin upon the anterior surface of the legs below the knees, of the lower part of the abdomen, of the tips of the fingers, of the lips, or, perhaps, in all of these situations at the same time. The shins and finger tips

are the most common localities of this lesion. This anæsthesia is, as a rule, clearly recognized by the patient, who calls the attention of the physician to its presence, but in certain cases, where the other symptoms are well marked, may be so slight as to require the use of the esthesiometer for its detection. There is often also a loss of the muscular sense of the soles, so that the ground is not distinctly felt, a condition which, with some want of co-ordination, generally present in these cases, determines a perceptible uncertainty of gait. Vague muscular pains are complained of, while deep pressure upon the muscles of affected parts, more particularly those of the calf and pectoral region, reveals the existence of much hyperæsthesia of these organs. There is, ordinarily, at this stage, some œdema of the legs, which, when not excessive, is most distinct on the anterior surface of the leg from above the malleoli to about the tuberosity of the tibia. Severe palpitation of the heart is almost invariable, while many patients suffer from a sense of constriction about the base of the chest, a symptom which often causes severe distress. The pulse is one of high tension, as is easily detected by the finger and clearly shown by the tracings of the sphygmograph, until grave symptoms appear, when vaso-motor paralysis occurs. This quality of the pulse is so well marked that one familiar with the disease will be led to suspect the nature of the case from this symptom alone. The heart's impulse is widely distributed; abnormal sounds are heard, suggesting valvular lesions, while both palpation and auscultation detect at the cardiac base and some little distance above that point, a peculiar semi-metallic, purring thrill, which, when clearly established, is of itself an indication of what the diagnosis is to be. The appetite is fair, digestion good, though occasionally there is present a slight irritability of the stomach. The lungs are clear, the urinary secretion natural, and the temperature normal, or a little below normal. To the inexperienced observer, there would probably appear to be little cause for alarm, but the experienced physician knows that while the case before him will probably recover under prompt action, neglected, it will drift into chronic disease; or, should acute symptoms supervene, it will prove fatal in a few hours. When acute symptoms do set

in, they do so without premonition. The heart's action becomes exceedingly rapid, the vessels of the neck pulsate violently, while the neck itself increases in size from the intense congestion to which it is subject, effusion into the peritoneum, pleura or pericardium is rapid and often in large quantity, anasarca increases, dyspnœa becomes intense, the complexion is livid, the distress of the patient is evidently great, frequent and painless vomiting is present, the temperature sinks below 90° and with but few exceptions death quickly closes the scene.

It is very seldom that the most enlightened treatment is of any avail in cases of this type: much depends upon the duration of the attack, which may be but an hour or two but is more frequently from twelve to twenty-four hours.

Chronic beri-beri presents more or less of the symptoms of the sub-acute form. The pulse continues high in tension, various abnormal and often puzzling heart sounds are heard; the localized anæsthesia and muscular hyperæsthesia remain to a greater or less degree, the latter being most persistent and severe; the muscles of the extremities, especially those of the legs, become atrophied; cramps are not uncommon, while atrophic contraction of the muscles of the calf induces marked deformity and a peculiar gait almost pathognomonic. Exacerbations often occur short of the grave conditions found in the acute form of the disease, and the patient, if unrelieved by treatment, after months or even years of suffering from weakness, palpitation of the heart and muscular pains, may die from exhaustion or extension of the paralysis to vital organs. Such are the prominent symptoms of beri-beri as found in Japan. In some cases there is anæmia, but this is only a complication of the disease, not a part of it. When death occurs it is often due to a failure of the heart, often to œdema of the lungs, and sometimes to pericardial or pleuritic effusion acting mechanically. Cases intermediate between the forms described are also met with. As a rule, the disease appears in the later summer and early autumn, though isolated cases occur at any time of the year. The weather has a marked influence on the manifestation of the disease, at least within the season in which it is the most prevalent. A day or two of wet, sultry weather is almost invariably fol-

lowed by an increase in the number of cases. In 1878, in Yokohama, some fifty members of the police force were attacked in the course of forty-eight hours, together with a large but unknown number in civil life.

Beri-beri is uncommon at the extremes of life, being most common after maturity and before middle age. Males suffer to a greater extent than females, but some females succumb to this disease after child-birth, as in Hakodadi where it is the curse of the parturient woman. No rank is entirely exempt, but the greater number of cases is found in the mercantile and student classes and among soldiers and sailors. The hard working and weather-beaten farmer and coolie are but rarely attacked.

The sequelæ of beri-beri require more attention than has yet been bestowed upon them. I am convinced that in many cases—neither recurrent nor of very long chronicity—the heart remains permanently affected, though not often to such an extent as to manifest the graver symptoms of organic heart disease; muscular atrophy and localized indurations of muscles often persist as sequelæ of this disease, and require special treatment.

The etiology of this disease is variously ascribed as malarial poisoning, scorbutus, rheumatism, rapid and great alterations of temperature, anæmia and causes predisposing to anæmia in bad or insufficient food, overcrowding, faulty ventilation, and the indirect effects of malarial influences. These differences do not clear up the pathology of this disease. The phenomena of beri-beri in Japan, at least, bear a close resemblance in many points to those of malaria, the world over, while they also differ enough to prove that the causes of the two diseases are essentially distinct. Like malarial disease, beri-beri has a limited range, but this range by no means corresponds to that of malarial fevers, intermittents, remittents, etc. Neither is the disease in question in any sense a febrile disorder, nor does it manifest any periodicity. Quinine exerts no influence whatever upon it other than as a tonic. The truth appears to be that beri-beri is due to a specific poison, probably of telluric origin, the diffusion of which appears to be much influenced by atmospheric conditions, and which, confined, as a rule, to certain localities, is capable of being transported in some

manner unknown to regions heretofore unvisited, where, if the necessary conditions for its development exist, it may become endemic. Any cause which predisposes to the contraction of disease in general, as child-birth, etc., may determine an attack of this disease when the specific poison is present, but then only.

Beri-beri may be complicated by malarial and typhoid fevers. The malaria may be gotten rid of by the administration of quinine, but not so the typhoid. Such complicated cases are in general more unmanageable and doubtless have a higher death rate than either disease alone.

As to susceptibility, many persons enjoy entire immunity. A residence of six or seven months in an infected district seems necessary to determine an attack, but in exceptional cases a much shorter time has been sufficient. Even after such a residence, the disease may be delayed and make its appearance a long time after removal from the infected district.

As to frequency, statistics are wanting as to the population at large, but among the soldiery the cases amount to 26 to 33 per cent. of those exposed, including all cases, and of this percentage the mortality is put by various observers at from 15 to 33 per cent. in India; at 25 per cent. in Brazil; and from 13 to 30 per cent in Japan.

A singular fact in the history of this disease, is the almost entire exemption of foreigners. There is not as yet a single well authenticated case of any one of American or European blood having suffered from an attack. The Chinese population are excepted in this statement.

After what has been written, the diagnosis should possess but little difficulty to any one who has read the symptoms as stated here. The autopsies which have been obtained have been very few, and sometimes have been imperfectly made, so that the post-mortem appearances are not generally known; but where examined, the spinal cord seems always to have been affected—the meninges congested, and much fluid always found in the spinal canal. Generally, the cord has been found softened in some part of its length, and most often in the upper part. Generally, the brain was found normal, or at most, œdematous. No specific has been found for this disease; consequent-

ly, the symptoms must be treated, and then with no certainty of success. No other remedy is so efficient for the reduction of the muscular hyperesthesia as aconite. It has long been used by the natives, and is useful in at least half of the cases. Digitalis, though useful in mild cases, is powerless in those of severe type. Ergot seems worthy of a trial. In the serous effusions, purgatives do good, and aspirations of serous cavities are sometimes indicated.

But while all medical treatment will often be of little use, in even mild cases, if the patient can be promptly removed from the habitat of the disease, there will be a chance for his recovery. In some localities, a perfect sanitarium for this disease can be found not more than five miles away from the point of infection. The importance of change of residence in the treatment of beri-beri is becoming so well-known in Japan, that it is hoped that the government will soon establish hospitals at proper locations to be devoted to the treatment of these cases. The rapidity with which many cases of beri-beri recover when removed to a healthful locality is really wonderful, and so unfortunately is the recurrence of the disease when the patient returns within its influence.

Action of Remedies.

ANNOTATIONS ON ANÆSTHETICS.—Mr. Osborn (St. Thomas' Hospital Reports) gives the following points which should be remembered by every practitioner: "There are three anæsthetics in common use in the hospital: nitrous oxide, ether and chloroform. The nitrous oxide is used only in operations which may be finished in a few seconds, as its further use is regarded dangerous. Chloroform is used in children under five years of age and in old people over sixty. In the latter it is preferred to ether because it does not produce the same amount of hyperæmia of the air passages. Aside from these cases ether is used on all possible occasions. A glass of brandy and water may precede the administration of chloroform, but no alcohol is given before the administration of ether. Vomiting is more frequent after chloroform than after ether, the excessive sweetness of the former being the cause. The alternating contraction of the abdominal muscles is the principal sign of impending vomiting, but if

the anæsthesia be slightly increased this may be subdued. Chloroform is administered on a piece of lint folded in the shape of a cone to permit the free entrance of air. Ether is given in Clover's apparatus, and four ounces are found amply sufficient for the longest operation. Valvular disease of the heart is not considered to contra-indicate the use of ether, the heart most to be feared being the fatty one, as it cannot be diagnosed by auscultatory signs. Feebleness of the pulse should not deter one from the administration of ether, as it generally improves under the influence of ether. In cases operated on with the aid of Esmarch's bandage, it will never be found necessary to use much ether, as the bandage greatly lessens the sensibility of the limb. Less ether is required in operations on persons suffering from shock. A lowering of the pulse has been seen to follow some of the more serious operations, and from a lowering of the pulse on the one hand to fatal syncope on the other is only a question of degree. Death may result from cerebral hemorrhage, the blood vessels giving way under the increased pressure. Death may also occur from failure of the heart's action, or from asphyxia, the former being the more serious accident of the two, as the heart cannot be roused to renewed action, though in the latter artificial respiration may save the life. When under chloroform there are signs of failure of the heart's action, ether may be substituted as a cardiac stimulant. In cases of threatened asphyxia forcibly draw the tongue out of the mouth by means of the forceps. CEdema or spasm of the glottis may be met by immediate tracheotomy. It is not probable that traction made upon the tongue has any effect in raising the epiglottis; therefore, if traction upon the tongue does not immediately relieve the threatened asphyxia by allowing the air to enter the lungs freely, tracheotomy must be done at once. Finally, neither ether nor any other anæsthetic is absolutely safe. They should be always given by one who is constantly in the habit of administering them, and who gives his whole time to the work of managing them.

Nervous Diseases.

LOCOMOTOR ATAXIA TREATED BY NERVE STRETCHING.—In the *British Medical Journal*, January 1, we find a report of five cases of locomotor ataxia treated by nerve stretch-

ing. One reported from Charcote's wards has continued to improve, and a month after the operation remained free from pain; the gastric crises have disappeared and the motor incoordination from both sides is almost gone. In another case operated upon by M. Debove, the median and musculo-cutaneous nerves of the right arm were stretched. After the operation the pains diminished in the right arm and disappeared in the left arm and lower limbs. The plantar anæsthesia has much diminished on the left side; the motor incoordination has much improved; walking has become possible without support. The patient has regained regular sleep and refuses morphia, as his pains are nothing to what they were. More than a year ago Langenbeck stretched both sciatic nerves and obtained not only complete cessation of the pains but also of the motor incoordination. Esmarch stretched the nerves in the axilla for pains in the forearm and the motor incoordination disappeared completely. In a case published by Erlenmyer the stretching of both sciatic nerves failed to modify beneficially either motion or sensation. As under the old plans of treatment locomotor ataxia is a well-nigh hopeless disease, this new plan is worthy of further trial.

VERTIGO—ITS ETIOLOGY.—Mr. McBride (Edinburgh *Medical Journal*, Feb. 1), from an able paper on this subject concludes: (1) There is a cerebral area or tract stimulation which produces vertigo. (2) This area may be stimulated by impressions, ocular, auditory, sensory, or visceral as well as by central changes, and is in intimate physiological relation with the vomiting and oculo-motor centres. That is to say, impressions conveyed to one of these centres tend to involve the others by overflow of nerve energy. (3) Excessive stimulation of the vertiginous area will produce an overflow of nerve impulse to various motor centres and probably unconsciousness. (4) Inasmuch as the phenomena of its extensive stimulation (as in rotated animals, Meniere's disease, etc.), are represented by a definite train of symptoms, we may infer that overflow of nerve impulse usually proceeds in the same direction—in other words, involves the same centres, first those which are intimately connected with it, then those more remote. (5) Possibly the same process of reasoning may be ap-

plied to death from shock, epileptic attacks, convulsions and some of the other so-called explosive neuroses. (6) In typical cases, ocular, stomach, and auditory vertigo may be distinguished from one another by the centre first involved. Thus we should expect that stomach vertigo would be preceded by nausea, if not vomiting; that ocular vertigo would be caused by changes in the motor apparatus of the eye-ball; but that in auditory vertigo the giddiness is the first and only symptom. (7) Sea sickness is probably generally due to stomach irritation, for here as a rule we have vomiting, and afterwards vertigo which is, however, by no means a constant accompaniment.

Diseases of Children.

ANÆMIA OF INFANCY AND CHILDHOOD—ITS TREATMENT.—Dr. A. Jacobi (*Medical Record*, Jan. 15) contributes a very interesting article on this subject. Among the remedial agents long resorted to in the treatment of anæmia, iron stands prominent. Whether or not the beneficial effects result from the administration of iron has not been answered to the satisfaction of all. Many of this class of patients recovered in consequence of change of diet, with rest and improved nutrition, without the use of any iron. Besides, in many cases recovery occurs when no iron has been administered. It has not been proved that it does not act in some other way than to increase the amount of hemoglobin. Diet and Heidler have shown that iron was absorbed by the stomach and probably in the upper part of the small intestine. It reappears in the bile, the pancreatic juice and the intestinal juice, not only after it had been taken by the stomach, but after it had been injected into the veins. The preparations most beneficial in the anæmia of children are the lactate, the tincture of the pomate, the pyrophosphate, the subcarbonate and the tincture of the chloride. The syrup of the iodide was indicated where, in addition, an absorbent was indicated; as for example, in slow convalescence after inflammations resulting in exudation, and especially in diseases of the glands and lungs. The subcarbonate combined with three or four times by weight of subcarbonate of bismuth and three or four times by weight of bicarbonate of soda, is especially useful when gastric catarrh interferes with general improve-

ment during slow convalescence or progressive anæmia. The tincture of the chloride must be regarded as a vascular irritant, and, whenever the action of the heart is lowered and blood pressure is lacking, it is the preparation which will be found most beneficial. The pyrophosphate is the preferable preparation in cases of anæmia with gastric catarrh, and catarrh or digestive incompetency of the upper portion of the small intestine. In cases of chronic anæmia, arsenic in minute doses after meals is beneficial, especially in that condition of the stomach which will not digest and assimilate in consequence of absence of both nerve power and gastric juice. If the digestion is impaired, it must be treated before the administration of either cod-liver oil or iron.

Surgery.

TREATMENT OF INTESTINAL OBSTRUCTION.—Prof. Larrabee, of Hospital College of Medicine (Louisville *Med. News*, Jan. 1, 1881), having had considerable experience with intestinal obstruction, thinks that surgical interference in this difficulty is not advisable. He says, "I am also satisfied that the treatment which, indeed amounts to so little, is quite as well without medication as with; and I have never found a condition which, save in one case, I considered could have been relieved by surgical procedure. The abdomen should be smeared with warm oil to which a little turpentine has been added. This should be followed by a large linseed-meal poultice, both of which are to be kept up throughout the case. Thirst is to be relieved by small quantities of water thrown into the rectum. Opium by hypodermic or stomach administration is to be steadily kept up, the only guide to the dose being the effect on the patient. Peptonized fluid beef may be injected into the rectum if the case continue long enough to require it.

Under this management, a twist, a volvulus, incarceration, or invagination of the intestine would result almost certainly in the death of the individual. A similar result would attend, I believe, any attempt at surgical relief, after the case admits of little or no doubt as to mechanical obstruction. There is, moreover, a chance which has, I believe, occurred quite as often as instances of surgical relief, that the incarcerated portion may slough off, leaving an entire, shortened, and patulous canal. This oc-

curred but once in my own private practice. In such instances, the adhesive inflammation set up around the invagination helps to secure a more perfect union and coaptation of the intestinal ends than could possibly be done with needle, should the intestine be found sphacelated. Moreover, in the management, should the patient die, as it is expected he would, we have the no small satisfaction that we have not been instrumental in adding to his sufferings by useless and experimental torture. Should the case prove, as must sometimes happen, not to be a mechanical obstruction, these means are best calculated to relieve the impaction."

CAUSE OF CHRONIC OSTITIS AND PERIOSTITIS.—The following is Leucke's ætiological table of chronic inflammation of bones and joints: (*Int. Jour. of Med. and Surg.*, Jan. 15, 1881.) *a.* (1) Hereditary tuberculosis; (2) Acquired tuberculosis. *b.* (1) Hereditary syphilis; (2) Acquired syphilis. *c.* Antecedent infectious diseases; and of these: (1) Pyæmia; (2) Infectious osteomyelitis; (3) Typhus; (4) Scarlatina; (5) Rubeola; (6) Gonorrhœa; (7) Variola; (8) Diphtheria; (9) Malaria; (10) Pertussis; (11) Erysipelas. *d.* Uncomplicated Traumatism. *e.* Gout.

It will be observed that he differs from the most of German surgeons who consider tuberculosis the principal cause of these maladies. Leucke (*Centralb. f. Chir.*, 1880, 36; *Int. Jour. of Med. and Surg.*, Jan. 8, 1881,) reports a case of excision of a portion of the pneumogastric nerve, about 12 c. m. in length, (it being involved in a canceroid tumor,) resulting in recovery. At the time of the operation no change in either respiration or pulse could be noticed. Five months later there was only a readably excitable respiration, and paroxysms of coughing upon pressure of the cicatrix, which could be referred to the excision. Ordinary respiration was normal. Cases of recovery after excision of any considerable portion of the pneumogastric are rare in literature.

TRIPOLITH.—Langenbeck read a paper before the Medical Society of Berlin, Nov. 1, 1880, (*Int. Jour. of Med. and Surg.*, Jan. 8, 1881; *Berlin Klin. Wochenschr.*, No. 46, 1880,) recommending a substance called tripolith as a substitute for plaster-of-paris in surgery. The method of manufacture is unknown, but it is ascertained that the main ingredients are calcium and silicon, with a

small percentage of protoxide of iron. The advantages claimed are, that the material is not so readily influenced by moisture, and hence, is more easily preserved for use; that the dressings are lighter by about fourteen per cent.; that it hardens more rapidly; and that when once hardened it is not affected by moisture or even by water. The material is said to be a little less expensive than plaster.

DOUBLE AMPUTATION—RECOVERY.—Dr. W. M. Lewis, of Greensburg, Ky., (*Louisville Med. News*, Jan. 15, 1881,) has recently amputated both feet at one operation, and obtained a good recovery. The patient, a negro, had frozen his feet solid. Amputation was performed at the junction of the middle and lower thirds.

THE SPRAY IN ANTISEPTIC SURGERY.—Prof. V. V. Bruns, of Tuebingen (*Internat. Jour. of Med. and Surg.*, Vol. I, No. 1.—*Berlin. Klinisch. Wochenschr.*, 1880, 43,) says: "The use of the spray in surgical operations is not only unnecessary and superfluous, but also a disagreeable and annoying addition, and ought, therefore, to be omitted." He states that he adopted and used the spray for a time, not from any conviction of its usefulness, but from a desire to avoid unfounded reproaches, which might have been pronounced against his clinic if he had omitted it; but for the two years, ending with September, 1880, he has used it very little, and summarizes his work as follows:

| | |
|---|-----|
| "Amputations and ex-articulation.. .. . | 62 |
| Osteotomies | 10 |
| Resections of joints | 26 |
| Resections distant from joints..... | 18 |
| Trephining with scooping of spongy bone... .. | 9 |
| Necrothectomies of long bones..... | 24 |
| | 144 |

Not a single one of these 144 operations have resulted fatally."

Under "amputations," he omitted cases of double amputation, of which he had four which resulted fatally. The whole number of patients admitted to the clinic was 1,175. He performed 350 bloody operations, besides the above mentioned, and many minor operations. The whole number of deaths during the two years was 36. Of these, "there was not a single case of so-called blood-poisoning, neither pyæmia, septicæmia or erysipelas." He believes in and practices antiseptic treat-

ment, but substitutes a short irrigation, at short intervals during long operations, and at the close and following the dressing in all operations. He claims better results than any ever before published, and feels justified in pronouncing judgment upon the spray, believing that the majority of surgeons will yet agree with him.

In a later issue of the same journal (vol. I, No. 2), the opinions of Mikulicz, of Vienna, are given: "While others have dropped the spray because of their success without it, M. advises its abolition on theoretical grounds, a full analysis of which would here be out of place." As the result of a series of interesting experiments "M. concludes that the purely mechanical effect of the spray is useless; that it carries particles of dust, etc., into the wound; that its chemical action may be preferably replaced by thorough and careful irrigation."

The subject is exciting much discussion among members of the profession everywhere. It formed the basis of an editorial in the *Medical Times and Gazette*, Dec. 18, 1880, in the *Boston Medical and Surgical Journal*, Jan. 20, 1881, in the *Louisville Medical News*, Jan. 29, 1881, and popular opinion seems to favor the abolition of the practice.

ESMARCH'S BANDAGE.—Carter Steul, (*Inter. Jour. of Med. and Surg.*, Jan. 15, 1881,) says that bandaging to prevent hemorrhage in castration is practiced in China. Before proceeding to castrate, the *thighs and abdomen are tightly bandaged to prevent excessive hemorrhage.* The operators form a distinct caste, and are recruited by members of their own families. The life of an eunuch there is an easy one, and as the demand for them is great, many children are submitted to the operation and even grown persons choose to suffer it. The external organs are swept away at one stroke, and the wound dressed with a tin plug, left three days. He says that death is rare.

CARBUNCLE TREATED BY SUBCUTANEOUS INJECTION OF PURE CARBOLIC ACID.—Dr. Z. T. Woods (*Toledo Med. and Surg. Jour.*, Dec., 1880) gives the history of two cases in which he had used the acid. In the first there were two carbuncles—one on the back of the head, the other below it on the neck. They were moderate in size. The upper one presented three openings, while in the one on

the neck the skin was not broken. Dr. Woods inserted his hypodermic syringe, filled with the pure acid, through the openings and completely saturated the mass. In a minute the smarting caused by the acid had disappeared, and with it all pain and soreness. The second one was treated in the same manner and with the same result, the skin over the mass quickly becoming white, hard and dead, and in a few days detached in the form of a slough. The interior mass also rapidly lessened and was removed, the remaining cicatrix being very small. The remarkable feature in this case, was entire absence of pain after the injection of the acid, the patient attending to his occupation without any discomfort. A second case, some months later, was treated in the same manner and with the same result. Dr. Wood's advises the use of the pure acid only and a complete saturation of the diseased mass. Dilution would increase, if not create, danger of absorption of the acid, and the insufficient quantity injected defeat the purpose for which it was used.

HOW TO REMOVE TIGHT RINGS.—The *British Medical Journal* gives the following suggestions on this subject: Oribasius writes, sometimes the finger is constricted by a ring and it is necessary to remove the ring without delay by giving it a rotatory motion, bathing it at the same time and anointing it with some kind of fatty matter. If the ring do not yield to these efforts the following operation is recommended: A thick twisted thread is sharpened at one end, in the same way that cobblers sharpen their threads, and passed between the finger and the ring, while the rest of the thread is rolled around the finger. When the thread is unrolled, the ring moves towards the tip of the finger, whence it can be removed. If the ring resists this treatment it is necessary to cut it. A writer in the *Concours Medical* suggests some improvements on this plan, so as to reduce the volume of the finger by ischæmating it, in the same way that ischæmia is produced by Esmarch's bandage. In the first place the finger is coated with fatty matter; then a thin thread about a yard and a quarter long is taken, one end is passed under the ring and above it to the extent of three inches. The end of the thread being thus held by the ring, the rest of the thread is taken to the top of the finger, round which

it is rolled in close overlapping lines, not leaving any space between them. This done, the second end of the thread is also passed under and brought up above the ring. Then this end being taken between the fingers, the rest of the thread is unrolled resting on the ring, which is thus gradually brought up to the point where it is always easily removed. If the first trial do not always succeed, it is rare for the ring not to yield to efforts twice or thrice repeated. Should this be the case, the ring must be cut on a cannulated sound with a file or divider.

TRIPOLITH—A SUBSTITUTE FOR PLASTER OF PARIS.—Prof. von Langenbeck (*Med. Times and Gazette*) describes a new material for fixative dressings. Its name suggests its properties of hardness and resistance. It was discovered by Mr. B. von Schenke, of Heidelberg. Originally, it was intended for stucco and decorative purposes, for which it was said to be superior to plaster of paris. While its mode of manufacture is not known, its chief constituents are calcium and silica, with a little of iron oxide. Tripolith bandages are employed in the same manner as those of plaster of paris. Its advantages are: (1) Tripolith appears to absorb moisture from the atmosphere less freely than plaster, and its power of setting is not lost even after long exposure to the atmosphere. (2) Tripolith bandages are lighter, and therefore pleasanter to the patient—about 14 per cent. lighter. (3) Tripolith dressings harden more quickly than plaster. While a bandage made with the best plaster requires ten to fifteen minutes before it is quite set—and in wet weather remains soft for hours—tripolith sets completely in three to five minutes. On the other hand it gives off vapor for many hours, and even after twenty-four feels moist to the touch. (4) Once hard and dry, tripolith absorbs no more moisture. A piece of dried tripolith dressing undergoes no change when laid in water. It would be possible, therefore, to allow a patient to bathe in his tripolith dressing, provided means were taken to prevent the water getting up inside it by means of an india rubber covering; while as regards plaster, it is necessary to paint it with damar varnish in order to make it water-proof. (5) Tripolith is a trifle cheaper than plaster of paris.

MR. HOLMES ON LISTERISM.—In the sum-

ming up of a debate on Listerism in the treatment of ovariectomy, Mr. Holmes made the following remarks: (*Lon. Lancet.*) Having before us the results obtained by both its friends and its enemies, he asked if these showed any such characteristic differences as would be the case were its theory true. Recalling the claims urged for the theory when it was first promulgated, he asked whether it was at that time thought that one hundred and thirty cases treated under the theory would show the same results as those treated otherwise? If one was not told, would he perceive any difference between the cases treated with and the germ theory as a basis and those without this basis? Not being a partisan of any method, he had sat at the feet of Lister and had tried to master the details of his method, which in the earlier days were far simpler than at present; for they had been so modified that he confessed he did not understand them. Did Mr. Lister himself understand them? Was the theory understandable? When a case is lost the failure is put down to failure to understand the theory; when a case is saved, then the theory is triumphant. If this were all it came to, and after the method had been so long in use, there was still a quarrel as to its advantage in one per cent. of cases it might be fairly said, "not proven."

RADICAL TREATMENT OF HYDROCELE BY INJECTION OF CARBOLIC ACID.—Dr. R. J. Levis (*Philadelphia Medical Times*), says that since 1872 he has been treating hydrocele by injections of carbolic acid. He began the practice in order to obtain a more plastic grade of inflammation than that obtained by ordinary injections and a less suppurative one than that obtained by incision. His method is to withdraw the fluid by an ordinary trochar, and then introduce the long nozzle of a syringe through the trochar into the vaginal sac. By this means the carbolic acid is thrown into the cavity, and there is no danger of its being thrown into the cellular tissue of the scrotum. The carbolic acid crystals are merely liquified by slight heat or by a few drops of glycerine. To keep the injecting liquid fluid ready for use at all states of temperature, about ten per cent. of glycerine or water may be added to the crystals. Dr. Levis injects into the vaginal sac about a half drachm of carbolic acid. The operation is almost if not entirely

painless, because of the local anæsthetic action of the carbolic acid. Patients have a sensation of numbness at the moment of injection rather than that of pain. Care should be taken that acid be allowed to flow upon the external surface of the scrotum as this produces pain and inflammation. After the injection the patient is permitted to walk about the house until the weight and soreness of the scrotum cause him to lie upon the bed or lounge. Undue inflammation does not follow this treatment, there is no marked pain, and the cure is generally radical. Dr. Levis has never seen sloughing or inflammation follow.

Obstetrics.

AXIS-TRACTION FORCEPS.—Dr. A. Reith (*Edinburgh Med. Journal*, February, 1881,) from his use of this forceps and his study of its practical working, concludes: (1) It does not effect traction in the axial direction, nor does it approximate the pelvic axis more closely than the ordinary forceps. (2) Hence, it does not avoid or diminish detrimental pressure on the pubes. (3) It is more liable, especially in particular circumstances, to inflict injury, both on the mother and on the child. (4) The axis of its traction being at a slight angle to the axis of the blades, the risk of injury to the child is correspondingly increased. (5) Compression by means of a fixation screw is liable to excess, and cannot be regulated so easily nor so safely as by handles and the tactus of the operator. (6) The increased power gained by it is liable to be used immoderately. The fullest legitimate power can be attained by the forceps, if the shanks be of proper length. (7) Any minor advantage it may possess, such as economizing the muscular power of the operator, is counterbalanced by the general defects. (8) It is, therefore, improperly named "the traction force forceps," and is not entitled to supersede the forceps in common use.

ALCOHOL IN PUERPERAL FEVER.—Jas. T. Whittaker, M. D., (*Obstetric Gazette*, Oct. 1880.) Puerperal fever is now recognized as the same blood poisoning process which occurs in every form of septicæmia. Obstetricians stand on the same footing with surgeons, and must march with them in the same road. Having discovered the septic germ, the *microsporion septicum*, it now re-

mains to find the corresponding paraciticide if we would deal successfully with the disease caused by the parasite.

We may not entirely by our present best known treatment, neutralize the poison, but we may counteract its chief effects, viz: the fever and the prostration. Alcohol was recommended to secure these results in the earliest history of medicine. The kind and quantity were prescribed in great detail by Celsus and by many physicians before him, and there has not been any time since that it has not had its advocates.

Alcohol has value in septicæmia, 1st, as a paraciticide; 2d, as an apyretic agent; 3d, as a food in sustentation. While it is not claimed for alcohol that it is in the full sense of the term a paraciticide in septicæmia, yet it must be admitted that it is the best we have. Alcohol is the agent selected above all others with which to preserve animal tissues, for the simple reason that it kills the germs of putrefaction. It arrests fermentation by destroying the germs upon which the process depends. Alcohol is a poison to the germs of putrefaction; in small quantities it checks the process and in large quantities (20 per cent.) it arrests it absolutely. This arrest of putrefaction is due to the action of alcohol on the bacteria causation of the process. Even in the process of vinous fermentation, when the amount of alcohol in the fermenting material reaches 20 per cent., the process is suspended by the action of alcohol on the yeast-cells.

The action of alcohol to reduce temperature is too well authenticated to need any argument to convince the most skeptical. A single dose of $1\frac{1}{2}$ ounces of alcohol administered to a healthy young man every other afternoon by way of experiment, reduced the temperature .6° F. on the days in which it was administered. Breisky considers alcohol a more powerful antipyretic in the septic resorption fever of the puerperal bed than quinine.

Alcohol supports the patient in septic and allied processes. The statement that alcohol is not consumed in the body but is voided from it, has now only a historical interest. No fact is better established than the oxidation and appropriation of it like other food. It is only when taken in excess that it appears in the excretions. The accurate analysis of Henbach and Schmidt upon the excre-

tions of man during its use, prove conclusively that after the ingestion of moderate quantities of alcohol no trace of it can be found in the excretions. In large quantities the part that remains unoxidised and unappropriated is the part that appears in the urine. Long ago it was noticed by English physicians that it is almost impossible to develop the toxic effects of alcohol in individuals suffering from fever, while at the same time it has been determined that alcohol in full doses largely diminishes the excretion of urea, common salt, the phosphates and sulphates, which materials compose the usual waste of tissue. Hence, because alcohol in large doses is antiseptic, is antipyretic and is nutritive, it is well adapted for the treatment of fevers, and especially that form of fever which is septic in its origin and occurs in the puerperal state.

Laryngology.

FLAYING OF THE VOCAL CORDS.—Dr. Carlo Labus (*Med. Surg. Reporter*, Nov. 6th, 1880) gives the results obtained by him during the past seven years in the treating of chronic congestion of the vocal cords by the removal of a portion of the congested mucous membrane. This is done by means of a Tuerck's polyp-crusher, or a toothed forceps of some kind with lower branches turned before or backward. After the patient has acquired toleration of the instrument by means of frequent manipulation, the operation is readily performed with little pain. The author's conclusions are (1) Catarrhal inflammation of the larynx is frequent among singers. (2) Said inflammation has for its cause, besides rheumatic diathesis, the abuse of the functions of the larynx, and its use in pathological condition. (3) It easily passes to chronicity, localizing on the vocal chords, these organs bearing the brunt of the functions of the organ and resulting in hyperplasia of the epithelial stratum and of the adjoining mucous layer. (4) The result of this inspissation of the mucous membrane which invests the vocal cord is an alteration in the voice very often only noticeable during singing, but sufficient to impede the artist in exercising his profession. (5) The treatment by topical applications is long, seldom giving rise to a complete cure; oftener produces but a short amelioration, and in most cases fails completely. (6) The process of flaying is

not only innocuous, but gives more complete and lasting results, and that in shorter time, constituting the true radical treatment of hyperplastic inflammation of the vocal cords.

A NEW METHOD OF PERMANENT INHALATION.—Dr. Feldbausch, Strassburg, (*Int. Jour. of Med. and Surg.*, Vol. I, No. 2; *Berlin Klin. Wochenschr.*, No. 47, 1880,) has invented a very convenient apparatus for giving permanent inhalations, of volatile substances in treating the various affections of the respiratory tract, as well as for a prophylactic against infectious diseases, etc. It consists of a pair of capsules made to fit the anterior nares and is nearly or quite invisible when introduced. It contains a piece of flannel or blotting paper on the inner surface of each tube, which is saturated with the therapeutic agent. The carbolic inhalation is the doctor's favorite, which he recommends especially in phthisis, (not only as a disinfectant, but to relieve cough,) and in acute catarrhs.

REMOVAL OF LARYNX AND PHARYNX.—Casselli (*Internat. Jour. of Med. and Surg.*, Jan. 8, 1881,) has performed, with the most brilliant success, the complete removal of the larynx, pharynx, base of the tongue, soft palate and tonsils. The occasion was the growth of alymphatic granuloma. The operation was performed according to the method devised by Langenbeck and performed by him in 1875, the only similar operation in medical literature. An œsophageal tube and tampon canula were used at first, the hyoid bone being retained, but the canula was soon exchanged for an ordinary tracheal tube, and a month later deglutition could be performed normally without the œsophageal tube, but the patient still used a bougie regularly. The patient now wears a modification of Gussenbauer's artificial larynx. The operation was performed with a galvano-caustic knife.

NEW CURE FOR RANULA.—Dr. Krabbel, of Wilten, (*Int. Jour. of Med. and Surg.*, Jan. 8, 1881; *Centralbl. f. Chir.*, 1880, 37,) has operated for ranula in a manner similar to that recommended by Volkman, for radical extirpation of hydrocele, with complete success.

Otology.

DISEASE OF THE MASTOID CELLS.—F. Buller, M. D., M. R. C. S., Eng., (*Canada Med.*

and Surg. Journal, Dec., 1880), reports twenty cases of mastoid disease and draws the following conclusions: (1) Acute secondary external inflammation of the mastoid is, when properly and efficiently treated, not at all a dangerous disease. An incision should not be delayed more than 24 hours if leeches, aconite and moist heat fail to arrest its progress. An early incision is especially indicated in young children on account of their peculiar tendency to necrosis or carious disease of the bone and its extension inwards. (2) It is not always possible to distinguish between acute external and acute internal inflammation of the mastoid, but the latter probably exists in any case of obvious mastoid inflammation if there has been a considerable period of severe pain of a neuralgic character before the external signs of the disease have made their appearance. (3) Some of the worst and most hopeless cases of mastoiditis do not show any positive external sign of their presence. It is just in these cases that an early diagnosis of pus in the bones is most desirable and yet most difficult. The presence of severe and persistent one-sided pain in the head with co-existing ear disease of a catarrhal or purulent character is very suspicious of deep-seated mastoid disease; a persistent slight elevation of temperature increases the probability of pent-up pus being present; possibly the use of the surface thermometer over the mastoid would aid in the diagnosis. (4) When once we are satisfied that pus has formed in the mastoid it is our duty to open the bone without delay. (5) The operation is not by any means always so easy as it is often represented nor is it devoid of danger. Often a very thick layer of firm bone requires to be cut through, and sometimes the most skillful operator will necessarily come into contact with the lateral sinus. The author is of the opinion that the surgical engine, so called, will be of service in opening the mastoid easily and neatly and with far less danger than the instruments usually employed.

TINNITUS AURIUM FROM INTRA-AURAL CAUSES—ITS TREATMENT.—Dr. W. D. Hemming (*Brit. Med. Jour.*, Sept. 20, '80) makes an excellent statement of the foregoing subject. (1) The external ear: (a) Tinnitus is more commonly a symptom of diffused than circumscribed inflammation of the external meatus. Obviously, the treatment of either

inflammation will be the treatment of the tinnitus. (b) If due to impacted cerumen, it must be removed. (c) Tinnitus due to deficient cerumen probably depends upon a torpid state of the bowels, or a gouty or rheumatic diathesis, or cold bathing; tonics, with aperients, will repair the disordered state of the bowel; locally, we may apply weak astringent solutions of nitrate of silver, etc., etc. If the tonsils are enlarged, or the mucous membrane relaxed, they must be restored to their normal state. (d) Tinnitus resembling the sound of an æolian harp, and apparently due to the abnormal growth of hairs in the meatus, can only be relieved by the removal of the hairs. (e) Dried pus on the membrane must be removed by a syringe. (f) If due to the aspergillus fungus, the latter must be removed. (g) Any foreign body in the ext. meatus must be extracted. (2) The middle ear: (a) Collections of mucus about the pharyngeal orifices of the eustachian tubes are not at all infrequent in cases complicated with middle ear catarrh: in such cases mucus will probably be found in the tympanum and on the drum head. In such cases, benefit will accrue from the use of vapor inhalations, as of benzoin, benzolè, and creasote, which should be forced into the tympanum by the Valsalvian method of inflation. Other methods should be employed suited to restore to a healthy state the mucous membrane of the throat and nose and eustachian tube. (b) In acute catarrh, there will be, besides tinnitus, severe pain deep-seated in the ear, impairment in hearing, bulging of the membrane, and vascular injection; the ordinary treatment of this, will relieve the tinnitus. (d) In those cases where, from chronic catarrh, there is contraction or paralysis of the intrinsic muscles, we must endeavor to stretch these muscles, or restore to them their lost power. (3) The internal ear: In cases due to congestion of the labyrinth, more is to be hoped from internal than external measures. Hydrobromic acid furnishes better results than any other remedy.

Therapeutics.

LESSONS FROM THE STUDY OF THE ANTAGONISMS OF DRUGS.—Dr. Bartholow (*Med. Record*) concludes his lectures on the above subject by the following: "It is obvious that the only rule which we can apply in therapeutics, as far as any rule is applicable,

is the rule or principle of antagonisms. In the case of the treatment of poisons, the antagonism is direct, the two opposing agents counterbalance each other until the natural powers accomplish the elimination of the toxic agent. When the poison enters the blood, a series of disturbances follow, which is due to its presence, to its action on the tissues for which it has a special affinity, and to the efforts made by nature towards its elimination. The antagonist pursues a similar course, but affects the particular tissue for which it has an affinity in an opposite manner, and thus prevents the impairment of function, which would otherwise result in death, until elimination occurs. The right use of remedies, in accordance with the law of antagonisms, requires an accurate knowledge of physiological therapeutics. While the notions of the actions and uses of drugs engendered by experience and observation are constantly changing, the deductions of experiments have the same value as the same methods in the other experimental sciences. To this end we should direct our best efforts, and rest satisfied with no less certainty than that which belongs to the exact sciences, until we have attained the degree of perfection, that the disease being given the remedy follows."

Pathology.

OSSEOUS CALLUS IN FRACTURES OF BONES OF MAMMALS.—Dr. H. O. Marcy (*Journal Anatomy and Surgery*, Feb., '81), sums up an interesting article on this subject as follows: "The germinal material which is effused in the vicinity of a fracture must be placed under certain defined conditions to secure therefrom an ossific development. From Ollier's many and varied experiments upon the periosteum, he found that to produce true ossification in transplanted periosteum, this must not only be revitalized by its connection of vascular character in its new relations, but must pour out or furnish an exudation of germinal matter *sui generis*. This exudation occurs only when the periosteum is irritated, not destroyed, and then there takes place a true ossific deposit, otherwise it does not produce bone. The process of consolidation in fractured bones is not uniform, but varies according to the quality and shape of the bones and the kind of fracture, as well as to the relations which are established between the fragments. These

different elements unite in many ways to produce the final result of consolidation. Although there is no primary union in bone as in other tissues, we may safely draw the conclusions that by careful and complete adaptation of the fractured parts we place the various factors of repair in such a relation that they most readily combine to aid in the restoration of the part and by retaining them undisturbed a certain period we assist in producing a more certain and satisfactory result.

Anatomy.

THE WYWODZOF METHOD OF PRESERVING SUBJECTS.—This method was used to embalm the body of Anson Burlingame and succeeded so well that, several years later the body was found in an excellent state of preservation. He makes few incisions and does not open the cavity of the abdomen or the thorax. He opens only the carotid and crural arteries, and after many experiments has reached the following conclusions (*Med. and Surg. Reporter*): The best liquid to inject into an entire subject, a limb or a visceral organ, is the following solution: Glycerine, 4 lbs; water, 2 lbs; thymol, 3 grams. (2) A quantity of liquid about one-half the weight of the subject is necessary. (3) The liquid should be slowly injected. If one limb is to be injected, the denuded part should be immersed in boiling water and the medullary canal stopped up with a cork. (4) The veins accompanying the carotid and femoral arteries, the jugular and femoral, should be opened near the openings in the arteries and the liquid injected until it appears in these veins. (5) When the liquid commences to pass by the mouth of the subject the trachea must be opened, a cork inserted and a stout ligature applied. (6) When the capillaries of the skin are filled the operation may be considered as finished. If one of the limbs should appear not well done, it should be separately injected.

Medical Jurisprudence.

MICHIGAN'S ANATOMICAL LAW, PASSED AT THE SESSION OF 1880-81.

We give the following, without comment at this time. We are indebted for it to the *Physician and Surgeon*:

To amend Sections 1 and 2, of Act number 138, of Session Laws of 1875, relative to subjects for dissection for the advancement of science, approved April 27, 1875, the same being sections 2110 and 2111, of Chapter 65, of the Compiled Laws of 1871, as amended.

SECTION 1. *The People of the State of Michigan enact*, That Sections 1 and 2, of Act number 138, of the Session Laws of 1875, approved April 27, 1875, being Sections 2110

and 2111, of Chapter 65, of the Compiled Laws of 1871, as amended, be amended so as to read as follows:

(2110)

SECTION 1. Any member of either of the following boards, and any of the following named officers or persons, to wit: The board of health of any city, village or township, the common council of any city, the board of trustees of any village, the mayor of any city, president of any village, any board or officer having the direction, management, charge or control, in whole or in part, of any prison, house of correction, work-house, jail or lock-up, county superintendents of the poor, keepers of poor-houses and almshouses, any physician or other person in charge of any poor-house or almshouse, sheriff, coroners, the board of State commissioners, the board of trustees, board of control and all officers, physicians and persons in charge, in whole or in part, of any institution for the deaf and dumb, blind, and insane, or other character institution founded or supported, in whole or in part, at public expense, having in his or their possession or control the dead body of any person not claimed by any relative or legal representative, as hereinafter provided, and which may be required to be buried at public expense, or the expense of any one of such public or charitable institutions, shall deliver such dead body or bodies, within thirty-six hours after death, or after he or they shall become possessed thereof, to the express or railway company at the nearest railway station, placed in a plain coffin and enclosed in a strong box, securely fastened, and plainly directed to the "Demonstrator of Anatomy of the University of Michigan, Ann Arbor, Mich.," excepting only the dead bodies of such persons as shall have died from some infectious disease. And such boards, common councils, officers or other persons making such shipment shall take the usual shipping receipt for such package, and shall notify the consignee of such shipment by letter, mailed on the day the package is so delivered as aforesaid; and shall also inclose in such letter a statement, giving, as nearly as can be ascertained, the name, age, residence and cause of death of such deceased person; and the name and post-office address of the known relatives of such deceased person, whose body has been shipped as aforesaid; and also a statement of

the costs and expenses which have been incurred in the procuring of the coffin, box, preparation of the body for shipment, and shipping the same. And upon the receipt of such consignment, the said demonstrator of anatomy of the University of Michigan shall immediately forward to such officers, board, council or institution or persons making such shipment or incurring such expenses, the amount thereof, not exceeding in any case the sum of fifteen dollars: *Provided*, Such dead body shall not be so shipped or delivered as aforesaid, if it shall be requested in good faith for interment by any relative, before the same shall be shipped as aforesaid, and in case the dead body of any person, so delivered or shipped as aforesaid, be subsequently claimed or demanded of said demonstrator of anatomy, or of any other person or institution, into whose possession or under whose control it may have been placed, by virtue of the provisions of this law, by any relative or legal representative of such deceased person, for private interment, it shall be given up to such claimant, even after the same shall have been interred as hereinafter provided. Such bodies shall be used only for the purposes hereinafter mentioned, and shall then, in all cases, be interred in some suitable place, kept for that purpose, and a correct record shall be kept of every such body, and all matters by which such body may be identified, coming to the knowledge of the person or officer at any time in charge of such bodies, shall be faithfully recorded at length, in a book to be kept for such purposes, to the end that the same may be at any time traced and recovered by the friends and relatives of such deceased person: *And provided further*, That the institution, board, council, officer or person aforesaid in charge of any such body, as aforesaid, shall, immediately after the death of such person, notify and, if possible, by telegraph, or otherwise, by letter, one or more of the nearest known relatives of such deceased person, of the death of such person; and in no case shall the body of any such deceased person be delivered or shipped as aforesaid, until after the expiration of twenty-four hours from death; and every individual, officer or party violating any of the provisions of this Section shall be deemed guilty of a misdemeanor.

(2111).

SEC. 2.—The bodies so delivered, or

shipped as aforesaid, shall be used for the advancement of anatomical science in this State and in the following institutions of learning only, viz.: The University of Michigan, Detroit Medical College, and Michigan College of Medicine. And said bodies shall be distributed to and among the same equitably, and in the order in which they are received, and the number assigned to each by said demonstrator of anatomy shall be proportional to that of its students in actual attendance. And each of said institutions shall pay quarterly to said demonstrator its ratable proportion of the expenses borne and incurred under this act: *Provided, however*, That said demonstrator of anatomy, upon the receipt of every body, under and by virtue of the provisions of this act, shall cause the same to be embalmed or put in a state of preservation, and shall not permit the same to be delivered to either of said institutions for the purpose of dissection, until the same shall have been in his possession at least ten days. And it shall be the duty of said demonstrator of anatomy, upon the receipt of every body, to immediately notify the relatives of such deceased person, if known, of the receipt of such body, either by mail or telegraph, as he may deem best. And that said body will be preserved intact, for the space of ten days, in which time such relative will be entitled to said body for the purpose of private interment, upon payment of the expenses already incurred. And if the relatives or legal representative of such deceased person shall request said body for the purpose of interment, and shall pay said expenses, said demonstrator shall deliver to such relative or legal representative, the said body, together with the said coffin and box enclosing the same. But in case said body shall not be requested by such relatives until after the same shall have been applied to the purposes intended, the remains thereof, together with the coffin and box aforesaid, shall be delivered without charge: *Provided*, That the University of Michigan, Detroit Medical College, and Michigan College of Medicine aforesaid, and each and every other medical institution shall not receive into their possession any bodies procured in this State other than those provided for by the provisions of this act, and every individual or party violating this provision shall be deemed guilty of a misdemeanor.

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Original Communications.

Cancer of the Pylorus; Acute Dilatation of the Heart;—A Clinic.

BY FRANCIS DELAFIELD, M.D.,

Adjunct Professor of Pathology and Practical Medicine in the College of Physicians and Surgeons, N. Y.

GENTLEMEN:

THIS woman, forty-two years of age, complained of pain in the stomach two years ago, which pain was of a throbbing nature, but did not continue all the time. She says it affected her general health. It did not cause sickness of the stomach. That was her only trouble (excepting constipation) up to two weeks ago, at which time she had sickness of the stomach and pain after eating food, which was relieved only by vomiting. She also felt at this time a tumor in her stomach, which could be moved.

The woman points to the place where she has felt the tumor, and the moment I put my hand there I do feel a solid body of some kind. That body seems very distinctly pulsatile. I feel a marked pulsation as soon as I put my hand on it. Still, that pulsation, of course, may be communicated to it from the artery beneath. The pulsation is not necessarily in the tumor, although I feel it. The tumor moves up and down with the movements of the diaphragm. I notice that the pulsation is unusually distinct in all of her arteries. The heart, of course, is beating a little more vigorously now from excitement, but even allowing for that the pulsation in all the arteries is unusually distinct.

The condition of the abdominal cavity corresponds to what she says about her food. It is quite empty, so that I am able to feel the posterior wall of the abdominal cavity without any difficulty. I can feel the pulsation of the abdominal aorta all the way down, without any trouble.

This tumor, whatever it is, is quite movable. I can roll it under my fingers, upwards and downwards. It feels as if it were about the size of a pigeon's egg, and is quite rounded and circumscribed. I cannot move it from side to side so readily, but I can move it upwards and downwards. The moment that she takes a deep inspiration and depresses the diaphragm, the tumor is pushed downwards with some little force. I have got it down now, with the assistance of her breathing, as far as the umbilicus. There seems to be no tenderness about it. When I get it down as far as that I can move it laterally more easily.

Well, then, we have here in the epigastric region a tumor which feels as if it were about the size of a pigeon's egg; a tumor which moves when the diaphragm is depressed by a full inspiration, and which can be held down so that it will not return again as the diaphragm ascends; a tumor which can be moved from the epigastric region as low down as the umbilicus, and which can be moved to a less extent from one side to the other. Now, the first question that presents itself is, to what abdominal viscera is it attached, if to any? The first viscus of which we would think is the stomach. The woman is forty-two years of age, and although that is young for the development of malignant tumors of the pyloric end of the stomach, still it is quite possible, for we do find them as early in life as that. That, then, is the first thing we would think of, the existence of a tumor at the pyloric end of the stomach; and the constant vomiting of which she has complained would also be in favor of that view.

Another viscus to which the tumor could be attached is the left lobe of the liver. Malignant tumors of the left lobe of the liver are not common, still it is possible for them to exist. But there is hardly any tumor of

the left lobe of the liver that would be as movable as this, so that I think we may fairly leave that out.

Then, we also have tumors of the colon, but tumors of the colon, however, are not usually situated in the transverse portion. They are usually either in the neighborhood of the caput coli or in the lower part of the colon, in the neighborhood of the rectum; and these tumors, when they do occur, are usually associated with some inflammation and some infiltration of the surrounding parts, so that the colon becomes adherent and prevents much mobility of the tumors. They give you a feeling of a very diffuse tumor, and not a feeling of a very movable tumor. So I should not think it very probable that this tumor is attached to the transverse colon.

Then, we also have tumors of the omentum, but tumors of the omentum are much more likely to be diffuse than circumscribed tumors. The most common form of tumor of the omentum is the colloid cancer, and that usually takes the form of a diffuse growth. We do not get a single circumscribed nodule.

To come back to the first thing that we thought of, tumor at the pyloric end of the stomach, there is no question but what this tumor is much more movable than such tumors usually are. The pyloric end of the stomach is not very firmly attached, it is true, but still it has attachments which keep it in some sort of place, and we are not able usually to push the tumor about to such an extent as we do here. Still, it would be possible for the attachments of the pylorus in this woman to be unusually lax, so that it would be unusually movable; and, although I should not feel absolutely certain, yet, taking all together, I should think the probabilities were in favor of this being a tumor of the pyloric end of the stomach. But, on the other hand, there is no question but what it differs a good deal from most such tumors at the pyloric end of the stomach. If it is a tumor of the pyloric end of the stomach, it is probably one of the ordinary kind, cancer.

You will observe that the woman has not at all the cancerous cachexia. She looks as if she is not in good health, but she is not by any means cachectic. Of course we cannot tell how long the tumor has been there. It undoubtedly was there some time before she

discovered it. She also complained of pain low down in the left side of the abdominal cavity. We cannot tell what is the relation between this tumor and that pain. The existence of that pain, however, and the depreciation of general health, which have lasted for two years, would strengthen the probabilities of this tumor being malignant. Not infrequently we get just that sort of history about malignant tumors of the abdomen. The patients feel sick without knowing what is the matter with them, or they will have pain in some part of the abdominal cavity, and that goes on for a number of months, and then in some way or other they themselves or their physician find out that there is a tumor in some part of the abdomen.

Of course if this is a cancer of the stomach, the prognosis is altogether bad. The probabilities are that she will run the ordinary course and die within a year from the present time.

With regard to the treatment, the only special indication now seems to be if possible to relieve vomiting, and I should be rather disposed to try to do that in her case by acting on the large intestine, rather than on the stomach itself. Instead of giving her any of the medicines which are given for their local effect upon the stomach, I should rather give her something to empty her large intestine, and see if that would not check the vomiting. Perhaps the best thing that we could give her for this purpose is aloes and strychnine. Let her take pills, each pill containing one grain of aloes, one grain of the compound extract of colocynth, and a fortieth of a grain of strychnia. One such pill three times a day. She will do better on a milk diet than by continuing to attempt to digest solid food.

We have here, gentlemen, a laboring man whose health was good up to four months ago. He was able to do hard work; he was able to carry the hod up the ladder. Four months ago he was taken sick with symptoms of acute pneumonia. He was taken with a chill, with pain in the left side, and after this he had a febrile movement, and he was told by the physician who took care of him that he had pneumonia. The pneumonia, however, was complicated. At the time when the pneumonia came on the heart's action became irregular and the man became dropsical during the course of the pneumonia.

He was sick in bed with this for three weeks, then apparently he got well from the pneumonia; at all events he is entirely well from it now. The dropsy disappeared, and he is not dropsical now at all, but the pain in the left side and the dyspnœa dependent upon the condition of the heart have continued; and if you notice the man's appearance you can see that he is evidently a man who is quite sick. The expression of the face is anxious, and he is somewhat emaciated; the circulation is imperfect.

On examining the heart we find that it is increased in size, and we find that this increase in size is due principally to dilatation. There is some hypertrophy, but the increase in size is due principally to dilatation. We find that the first sound of the heart is less loud and distinct than it should be; that the second sound of the heart is nearly normal; that the heart's action is rapid and irregular, and that the contraction of the ventricle does not fill the arteries as it should.

The urine does not contain any albumen, nor is the ascites such as to make me suppose that the man is suffering really from kidney disease of any kind to any extent. I should judge that the dropsy was dependent upon the combination of the pneumonia with the heart trouble.

There are two points in his history which are of consequence. In the first place, the man has had an attack of pneumonia from which he has recovered. Secondly, he has heart trouble at the present time, and the question is, what is the nature of that heart trouble? I should be disposed to think that he is suffering from that form of heart trouble which is not very common, but which when it does occur gives rise to very grave symptoms indeed, and that is the form of heart trouble which we may call for convenience, *acute dilatation of the heart*. When I say *acute* I use the term relatively; relatively to other organic diseases of the heart, for the course of these cases is usually over several months. The disease does not run its course within a week or so. It usually lasts for several months, but still it is developed rapidly. It is developed acutely in comparison with the development of most organic diseases of the heart. In these cases we find the valves of the heart but very little changed. They may not be changed at all, or they may be but very little changed

indeed; but we find the ventricles dilated, sometimes both ventricles, sometimes only the left ventricle, usually the left. Sometimes after the cases have lasted for a little time the wall of the heart is somewhat thicker than it should be. There is both hypertrophy and dilatation, but the dilatation is much in excess of the hypertrophy.

When this condition is once established it very soon indeed gives rise to great disturbance of the circulation, especially the venous circulation. This disturbance of the circulation shows itself in different ways. The patients may become dropsical, as was the case with this man. They always, so far as I know, suffer from very great dyspnœa, and from a very distressing dyspnœa; they are very apt indeed to have a peculiar, anxious and haggard expression, such as this man has. Usually they are not able to lie down in bed; they are obliged to sit up in bed on account of the dyspnœa. The pulse is usually feeble, as is the case with this man, and the skin is usually cold. These cases do very badly indeed, they get worse, and they get worse very rapidly; they get worse much more rapidly than do ordinary cases of ordinary heart disease, and usually within a few months the patients die. Sometimes they die dropsical. Sometimes they die suddenly. They keep getting worse for a long time, and then they get out of bed to go to the water closet, or they sit up in bed to eat something, and they fall back suddenly dead, death being almost instantaneous. At other times they will die in an attack of dyspnœa. The dyspnœa will become worse, the patient will become more and more cyanotic, and die in that way.

The importance of recognizing these cases consists in this very fatal prognosis, and in this rapidly fatal prognosis. In ordinary cases of organic disease of the heart you always have to be very careful, not to make your prognosis too bad. No matter how much valvular disease a patient may have, he is always capable of surprising you by living years and years longer than you thought he would. Everybody who sees many cases of heart disease becomes more and more careful about giving a too unfavorable prognosis. A person may have very marked valvular disease of the heart and yet go on living comfortably for a great many years, but in these cases you need have

no hesitation in giving a very unfavorable prognosis. These patients do not get better. They not only do not get well, but they do not get better. The course of the disease is steadily progressive; the interference with the circulation becomes worse and worse and worse, until the patient dies in one of the ways of which I have spoken.

Trichinosis—A Report of Five Cases.

BY GEO. E. RANNEY, M. D., LANSING, MICH.

ON the evening of February 1, I was sent for to visit a family, five of whom had been ill for a number of days. On inquiry I ascertained that they were being treated by Dr. Dolan, of this city, and that he was in doubt as to the diagnosis of the peculiar disease with which they were suffering, but suspected trichinosis. I refused to see the patients except in consultation with the attending physician, and accordingly, by arrangement, Dr. Dolan called for me the next morning to see the patients with him. Those then suffering with the disease were a woman aged about 45, her two sons aged respectively nineteen and twelve years, a daughter aged about seven, and a young man boarding with the family, aged about twenty-one years. They were all similarly affected, and complained of lassitude, depression, sleeplessness, loss of appetite, heat and thirst. The abdomen of each was tender and slightly tympanitic, but no roseola spots could be seen thereon, and although, in some respects, presenting the appearance of typhoid patients, and also some of the symptoms peculiar to muscular rheumatism, there were wanting many of the characteristics that would advertise the disease as either. There was an apthetic condition peculiar to the former, and a swollen, tender condition of the muscles peculiar to the latter disease. There was in each case a remarkable condition of the whole muscular system, such as I never saw before, characterized by extreme pain in the extremities, contractions of the knee and elbow joints, trismus, and in the worst cases a labored, painful respiration, and a swollen, puffy, œdematous condition of the face and extremities. These symptoms began to manifest themselves in about three weeks after eating raw pork, supposed to have contained trichinæ. We became satisfied that we had to deal with trichinosis, and after some difficulty, owing to the family

being German and unable to make themselves well understood in English, and a reluctance on their part to communicate all the facts germane to the subject, we elicited the following facts, viz.: Some weeks before our visit, one of their hogs sickened and died, and subsequently another of their hogs appeared sick, and on November 7, about five weeks previous to the time of my visit, they had slaughtered this hog, and, according to a dangerous custom prevailing in Germany and among some Germans in this country, had eaten at least part of it raw. The raw pork sickened the small children, three in number, ranging from two to five years of age, causing severe irritation of the alimentary canal, vomiting and purging, and thus, probably, by expelling the trichinæ, they escaped the dire consequences that befell the older members of the family, whose digestive organs more obligingly tolerated the myriads of terrible guests contained in the meat they ate, and which remained to grow in the alimentary canal and propagate in most wonderful numbers. We requested one of the girls who was caring for the sick members of the family, who previously had been living away from home and thus avoided the diseased meat, to furnish us pieces of pork from the hog mentioned above, and from two others which they had since butchered. She gave us three pieces of meat and said they were from the three hogs. Examination of the pieces under the microscope revealed no trichinæ, but so certain was I that the patients were suffering from trichinosis that I assumed that from a want of knowledge on the girl's part as to the particular hog from which each piece of meat was taken, or by a design, she had not furnished any from the hog first slaughtered. So we pronounced the disease trichinosis, and about three days subsequently verified the diagnosis by examination of some muscular fibres, removed from the youngest boy, who had died. Under the microscope, great numbers of non-capsulated trichina could be seen. The muscle examined I removed from the front part of the leg below the knee. On cutting through the integument to reach the muscle, a peculiar pathological condition revealed itself. The incision made quickly filled with bloody, watery, sanious fluid, and when emptied with a sponge was quickly filled again with the

same kind of fluid. The muscle was of a grayish red color, and was quite fragile.

The mother continued to grow worse, the functions of her respiratory muscles becoming seriously interfered with, and in a manner not to be seen in other diseases, causing her great effort to breathe, severe pain, distressing pneumonic symptoms, and threatened asphyxia, death ending these sufferings February 7, about eight weeks from the time she ate of the diseased meat.

At this writing, February 26, the other three patients are convalescent.

Trichinosis in Michigan has been comparatively rare, as far as recognized, the cases above mentioned being the only ones known to have occurred in this county. The limited amount of literature on trichinosis published in this country, its liability to be mistaken for some other disease by those not familiar with it, the importance of early recognizing its symptoms, and a desire to stimulate more vigilance in avoiding the disease, are reasons which prompt me to write this article.

Trichina spiralis is the most dangerous parasite known, and it is of vast importance that the physician should be familiar with its mode of propagation, growth, habits and the pathological symptoms and effects it may produce.

"*T. spiralis* (which finds access to the human body through eating flesh of animals infested with it) was first seen by Tidemann in 1822, and was first described by Mr. Owen in 1835, from a specimen taken to him by Mr. Paget. * * * At this time trichina was regarded chiefly as a dissecting-room curiosity, and it was not till the year 1860 that Virchow showed the pernicious consequences resulting to those who were so unfortunate as to harbor such terrible guests." See Aitkins' Jour., vol. i, p. 840.

The following is a brief statement of the results of Prof. Virchow's experiments, as published in Virchow's Archives in the summer of 1860:

"Rabbits fed with trichinæ die in about a month under symptoms of general muscular paralysis.

The trichinæ, which, as long as they reside in the muscle, have no perfect sexual organs, become perfectly developed in the ileum. They are found free in the duodenum about six hours after a piece of trichinatus muscle

has been introduced into the stomach. In about a month they attain a length of four lines, and during that period not only mature eggs and sperm-cells, but numerous embryos, resembling small filariæ, are developed, which leave the maternal body through the anterior sexual orifice, are found in the mesenteric glands and rapidly invade the whole muscular system, dwelling within the sarcolemma and feeding upon the contractile substance of the muscular fibres. They are found in all the striated muscles of the body, with the exception of the heart. The liver, lungs, kidney, etc., are free. In case the emigration is not sufficiently extensive to cause a fatal result, the trichinæ become inclosed in a capsule, which consists originally merely in a thickening of the sarcolemma, and this is the only condition in which they were formerly known. The trichinæ now shows the highest development it is able to attain within the muscle in which it originally penetrated in an embryonic stage. It still retains its vitality and quietly waits for an opportunity to find its way back into the intestinal canal, where, as the two sexes attain the stage of puberty, a wonderful productiveness, so pernicious to the individual who is unfortunate enough to harbor such terrible guests, is displayed."

When we consider that from thirty thousand to seventy thousand trichinæ may exist in one square inch of meat, that most of them are females containing say 500 eggs, that within six days from entering the stomach they will grow and propagate their young, who will soon thereafter commence their wanderings through the muscular system, causing a most painful and dangerous disease, we are reminded that "evil things do fastest propagate," and that the human bearer of them can find but meager satisfaction at most in playing the host to such numbers, unless he be animated, more even than most politicians are, by the sentiment to do "good to the many."

Experiments by feeding animals with trichinous flesh show positive results in dogs, cats, guinea-pigs and hedgehogs, and only negative results by feeding it to birds, trichinæ never having been found in the muscles of birds. Carniverous animals, and especially those which subsist on a mixed diet, appear most liable to entertain trichinæ.

Trichinosis is a disease that has prevailed

to a considerable extent in Germany, where the custom of eating raw pork prevails. It is a disease which scarcely ever occurs among the French, English or Americans, as they secure their immunity by thoroughly cooking their pork. A temperature of 160° Fahr., or a thorough and protracted salting or hot fumigation for twenty-four hours will destroy the trichinæ. Smoking the meat does not destroy the parasite.

Probably but few hogs in Michigan are infested with trichinæ, but more or less danger must accrue to those eating raw pork from hogs that have been fed on slops liable to contain trichinous meat, or that have had opportunities to eat diseased or dead rats. I have been informed that many sick hogs are hurried off to market and find their way to some of our large slaughter-houses, especially in Chicago, and that any hog that lives to reach the slaughter-house is slaughtered and is voted by the butcher to have died an "honorable death," and is accordingly marketed as healthy pork.

In view of this fact may it not be well to establish at all large slaughter-houses a service of inspection?

**Address Delivered at the Commencement
Exercises of Detroit Medical Col-
lege, March 10, 1881.**

BY A. B. LYONS, M. D.

Prof. Chemistry, Detroit Medical College.

ANOTHER score of young doctors turned loose—so our friend of the sensational daily press will put it—duly authorized and commissioned to bleed and purge and otherwise to practice *secundum artem*, their newly acquired profession, upon the suffering public. I do not wonder, ladies and gentlemen, that you have had the curiosity to come here and see for yourselves these *enfants terribles* of the profession. Whether or not the particular young doctors to whom you have just had a formal introduction, are so altogether dangerous, I think you may judge fairly well yourselves even without closer acquaintance.

Evidently these young men have not been sent to school by parents or guardians, to keep them out of mischief, or because they must learn something useful in life.

There are, probably, few rich men's sons among them. Whatever may have been for them primarily the attractions of a physician's exacting life, it is plain that they

have entered it of their own free choice, and already under the discipline of the tasks demanded of them in the preparation they have matured into full manhood—unless, indeed, the character lines in some of these faces be not the marks left already by older experiences.

Having, therefore, voluntarily chosen their life work, and spent years in arming themselves for its emergencies, and that with aids and facilities unknown to their predecessors, you may be assured that these men, even without the skill that comes from long practice, are fairly worthy of your confidence.

We have endeavored so to train them, that, as far as book learning and communicable knowledge is concerned, they may start with all the advantages we ourselves possess. We have formed them to such habits of minute attention to all that concerns the well being of the human organism, that they mentally subject to chemical analysis the food they eat and the air they breathe; some of them even dare to question as to the character of what they drink, although here "who doubts is damned." For them the hidden mechanism of these bodies of ours is an open secret; its vital activities, the physiological processes of nutrition, circulation, respiration and secretion are ever present realities, and their eyes have become quick to detect the obscure signs that show any derangement of their normal harmony. Familiar with every resource of the healing art, it has become an instinct with them to fly to the rescue of suffering humanity, and to men who know so well how fleeting is opportunity, to think is to act.

Patterned at least after such an ideal, these young physicians go out among you to compete with those who already are known to you as "doctors"—some men of similar training, but with superadded experience—some with no training whatever, but a large knowledge of the gullibility of the public, and unbounded confidence therein; with men who style themselves eclectics, or electro-vitalists, or, with pitiable poverty of imagination, Indian doctors. We ask of you no favors for them or for others of like training who may choose Detroit for their home. It is for their inherent manhood so to assert itself that you may know them worthy to be trusted in the hour that

threatens peril to your lives, or perchance to that which you hold infinitely more precious than your own life. Only we commend them to you as men who already have been tried and found worthy of high trusts.

GENTLEMEN OF THE GRADUATING CLASS—
In the name of the profession into whose ranks you have this night been publicly admitted, I welcome you to all the honors and emoluments, labors and responsibilities that henceforth are yours in virtue of your title, "Doctor of Medicine." Personally, I offer you each and all my hearty congratulations on your success in winning for yourselves so honorable a title. Some of you—perhaps the most of you—entered on the work with vague ideas of its character and no apprehension at all of its magnitude. There was much to learn, of course, about anatomy and physiology and the use of medicines, but you had no adequate conception of the complexity of the human frame even from the standpoint of the anatomist, and you soon found that most of your notions regarding disease and the use of remedies were quite incompetent, if not wholly false. Of the practical drill and physical discipline necessary to supplement and make available a knowledge of mere facts, of course you could have beforehand no idea. Not a few who entered upon the study of medicine with you have found the road to professional honors too arduous, and on one pretext or another have abandoned the enterprise. The principle of the survival of the fittest has received, we conclude, one more exemplification. Do not be too much elated, however, gentlemen, by that consideration; the same law must continue to operate in the years to come, and you will be fortunate if it does not cull out even from among you here and there one not called to the vocation of a physician.

I congratulate you, nevertheless, as you stand ready at last to enter that vocation, on the success which is in itself an augury of future good. I congratulate you on the opportunity that is now open to you, not for mere renown—that shall rarely fall to the lot of the physician—but for lives of larger usefulness.

We who have been your instructors, may be pardoned if we show almost a parental pride in you our fosterlings. We must be pardoned, too, if like any good father, we show also our parental solicitude by giving

you to-night parting words of counsel, which you will, like all dutiful sons, straightway forget.

Henceforth, indeed, we meet on the plane of fraternal equality; and to-night I wish rather as an older brother to take account with you of the large possessions which are our common inheritance.

Not for the first time, but with more eager interest than ever heretofore, you are asking yourselves to-night, what opportunities does the profession we have chosen offer for individual growth and development? What incentives has it for ambition? What further preparation does it demand of us if we are to be leaders in it? What peculiar obligations does it impose? In what directions must we especially guard against the narrowing influences which are inevitably connected with the pursuit of any peculiar life work?

It will be impossible for me to give to each of these questions a complete and satisfactory answer: in fact, the full answer to some at least of them can reveal itself only in the slow unfolding of your individual professional lives. I may hope only that the suggestions I have to offer may foreshadow or outline the reply.

Let me say to you first, gentlemen, that henceforth you are yourselves part of the medical profession, and that your influence, be it great or small, will inevitably modify its status for good or evil.

These are the days of rapid and sweeping changes in public sentiment, in social customs—even in judgments regarding questions of private and public morals. Americans have pushed to its extreme deductions the dogma that all men are free and equal. Respect for gray hairs is no longer shown. All that is old is old foggy. We want the latest inventions and improvements, and with reason. You know that scientific and medical text books published ten years ago are quite out of date and antiquated. No less an authority than Prof. Huxley is credited with saying that a scientific man, after he is sixty years of age should be put to death as an obstructionist. If he were not himself fifty-five I suppose he would have limited even further the age of possible usefulness.

The theology of to-day is not that of fifty years ago. Law, probably, has changed to an equal degree, although there clings to its

forms a certain aromatic savor of antiquity, that reminds one of an Egyptian mummy. Medicine, so far as it is based on scientific knowledge has been revolutionized within that period, and is destined to undergo yet in our own generation important changes. We may congratulate ourselves that thus far amid these changes the *esprit de corps* of our profession has been maintained intact; its time honored principles of ethics are still substantially those embodied in the famous oath exacted of his disciples by Hippocrates, the father of medicine. But the spirit of the age is at once mercenary and communistic, and you will not be long in practice—nay, you have not been thus long students of medicine, without learning that the laity already assume that your business, like that of any tradesman or mechanic, is to be conducted solely with an eye to the dollars and cents. You know that this is not what the medical profession means to yourselves. You have constituted yourselves high priests of the Power that reveals itself in the laws of nature. As such it is your solemn duty to denounce judgment on all who violate those laws. You cannot undertake the office of intercessor except for those who repent of their transgression. Yet daily you will be approached with bribes by those who would violate the law but escape the penalty. I do not now mean those whose confessed vices ought to bring to your cheeks a blush of shame; it is easy to pronounce stern rebuke in the name of violated law upon such, but the petty offenders who will ruin their digestion with hot rolls, half baked, but swallowed whole, or invite an early funeral by wearing paper-soled shoes, or a bird's wing as an apology for a bonnet. How much easier it is to prescribe pepsin, or syrup of hypophosphites, and pocket your fee, than to fulfill to such patients all the duty that your sacred office demands—and lose both fee and patient. In virtue of your office you are bound to set first the example of a pure life—a life in which appetite and passion and ambition even are subordinated to reason, and then to preach to others temperance in all things. By instruction, line upon line, precept upon precept, by warning, by bold rebuke, by denunciation of swift judgment even, you are bound to use your best endeavor to save men from the inevitable consequences of sinful indulgence.

You have no choice but to visit with stern condemnation sin and the unrepentant sinner. But when the penalty has fallen, whatever may have been the degree and the aggravation of the guilt, the mediatorial character of your priestly office must melt you to divine compassion. Like the Great Physician, who remains still your highest model in his grand humanity, you shall anticipate repentance with pardon; first, "Thy sins be forgiven thee;" afterwards, "Go and sin no more." And you shall often sacrifice your own pleasure and comfort—nay, it may be health and life itself—in making atonement for the guilt of another. Call to mind only as a conspicuous example, and one fresh yet in memory, the heroes who in Shreeveport and Memphis faced undaunted the contagion of a plague which spared not high or low, and against which they knew that their best weapons were all but powerless.

The responsibility you have assumed in attempting to guard the lives and health—wholeness of life—of those who place themselves in your hands, you understand better than they. To carry out with singleness of purpose all that is involved in that charge, you must be men consecrated—set apart from the mercenary herd, and the oath to which you have this night given assent is the outward sign and symbol of that consecration.

One especial point in connection with the ethics of the profession, I may be permitted to enlarge upon, since it is one in which an honest difference of opinion is possible. Hitherto it has been considered beneath the dignity of the profession to enter the lists with the charlatans by advertising. How from the nature of his calling the physician is incapacitated from entering into successful competition, in this direction, with the quack I scarcely need to point out. His supreme regard, as a scientific man, for the strict and absolute truth prohibits him from making the sweeping assertions in regard to his own superior endowments that are essential to a telling advertisement. But, further than that, the laity are not competent to judge of the qualifications he may claim to possess. Present company, of course, excepted, our enlightened American public, including members of the learned professions, do every day lend listening ears and easy credulity to the plausible lies of this self-styled "doctor" or that newly named "professor." The most

transparent falsehoods are believed about as readily as those that have, at least, an air of *vraisemblance*.

The quack labels a bottle "compound oxygen," assures you that it is "not a medicine"—"all medicines are poisons, but this is heaven's own life-giving oxygen—the vital air of Condorcet—condensed by a newly discovered process" into a liquid—which will cost you for a month's supply only ten dollars. Every school-boy knows what oxygen is, and what its physical properties are—and ought to know that the name "oxygen," as applied to the contents of this bottle, is used strictly in a Pickwickian sense. If a grocer were to label a barrel of flour pure sugar, he would not impose on a single customer; but the man who has offered you his inhalent of iodine and chloroform, labeled oxygen, has made himself wealthy, I have no doubt.

Holman's liver pad "cures by absorption." Forthwith the ever gullible public pays Mr. "Holman" its dollars to be cured "by absorption." Celery and chamomile no one supposed to be especially active medical agents, and yet celery and chamomile pills, from their name alone, I venture to say, have taken with the million. That the flavor is unmistakably that of capsicum, rather than of chamomile does not make a particle of difference to the purchasers. I might multiply instances, but these sufficiently illustrate my point, which is simply that it is impossible, in the existing state of things, for the physician to advertise himself further than by his sign or card without placing himself actually on a level with the quack.

Mind you, gentlemen, I do not say, "Hide your light modestly under a bushel." No, keep it well trimmed and burning, and as a beacon light, place it where its rays can extend the farthest and so be of the greatest use. Possibly the figure may suggest ways, in which the physician may legitimately advertise both himself and his profession by assuming the role of instructor of the ignorant public in matters that pertain to private hygiene and public sanitation. Work enough of this kind there is to be done; and if you do provoke invidious sneers from the indolent or the incompetent among your competitors, you can afford to be magnanimous; they will do you no harm.

After all, the man who needs to bolster himself up in his profession by advertising

dodges, is confessedly not one whom talents and ability have placed in the first rank.

Not for the sake of notoriety, but because it is in you, make your mark in the community where you shall settle. Have you earnest convictions in politics, in religion, in questions concerning public health and public morals? Let them not sleep in your bosom while the world needs the influence of guiding convictions. Have you literary and artistic taste? Let it find expression so that congenial souls shall seek and value your friendship. But subordinate all else to your professional life work. Be known first as the prompt, attentive, enthusiastic physician, and then as the courteous, large-minded and large-hearted gentleman, and the patriotic, law-regarding citizen.

But suppose I am only plain John Smith, country born and bred, my newly acquired knowledge of medicine my only capital, with no ambition except to earn an honest living? Then go among the people whose habits and modes of thought you know so well, and minister to their distresses to the best of your skill—and plain, good Dr. Smith shall be remembered with reverential affection to the third and fourth generation.

What further preparation do you require to fit you for the trying emergencies of actual professional life? That, gentlemen, is a hard question to answer in any general terms. Taking it for granted that you have improved every opportunity that has been offered while at school, I say in the first place, you need to winnow out the chaff from the valuable grain which you have accumulated. The chaff had its use in the growing wheat, but it now is only an incumbrance. Forget then, judiciously, half that you have learned. But that is something you never taught us to do. True; it did not seem at all necessary. But here is the method; keep firm hold by continued reading and frequent reminiscence of those portions of your knowledge which have an immediate bearing on your present and prospective work. The rest will soon enough vanish from the field, at least, of your conscious memory. While you are drilling yourselves in the diagnostic distinctions of dislocation of the hip joint and inter capsular fracture of the femur, you will soon enough forget the complicated origin and insertion of the latissimus dorsi.

But you have to do more than merely to

review the ground traversed in college. Many subjects were there just touched upon which you have marked to read up. Then you have to familiarize yourself with the progressive work of the profession, by reading the medical journals, and by joining yourselves as active members to the medical societies of your county and State. But your great work, as students, will be of that indefinable kind, which by a homely but apt figure has been called ruminating—calling up at the suggestion of some “case” presented for treatment, disconnected fragments of knowledge which you have hitherto only half understood, reducing them to homogeneity, and preparing them to become part and parcel of your very self.

Hitherto you have studied man only piecemeal, learning minutely the chemistry, the anatomy, the histology, and the physiology of the human organism; and so you have studied disease in a fragmentary manner, learning its signs and symptoms and pathological changes. But all this will be of no use to you unless it aid you to know humanity as a whole, as exemplified in men, women and children—unless the skeleton outlines of disease as presented in your books realize themselves in the patients you are called to treat, and principles of treatment interpret themselves in your habitual thought as practical precepts, rules, routine, even, if it must be so.

In addition to the *tactus eruditus*, the practical use of the senses according to prescribed methods, you must cultivate *tact*, which is a thing intuitive, and means quickness to adapt old knowledge to new needs.

As much as is compatible with faithfulness to your work, keep out of the ruts of professional thought. Problems which baffle the logical methods of your science are often penetrated at a glance by the intuitions of common sense. Be quick to catch suggestions of valuable truth which may come to you from the humblest source. Of course, you will not make the fatal blunder of directly asking your patient for opinions or advice. After all, it is not simply what you know that is to benefit your patients, but what you are. In order that others may rely on you, you must be yourselves thoroughly self-reliant and strong. Physically, mentally and morally, you must be strong men—strong in your sympathies, strong in your

virtue—the very word means strength—strong in your will, and you must be true as you are strong. Charlatans commonly claim miraculous powers in the healing of disease. It shall be yours, if you ever become really physicians, to work genuine miracles of healing by the subtle influence of your strong, healthy, sympathetic personality.

Gentlemen, I am detaining you beyond my limits of time, but you see that you have a great deal yet to learn. Your study, in fact, is but just begun. It has for its objects a complete knowledge of the microcosm—man. You have investigated the matter of which his body is composed, and found it not the lifeless substance you had supposed, but instinct with energy—itself almost human in its power to choose, to will, to love, to act. You have traced the living organism to its primitive protoplasm, or its primordial cell, and learned something of the laws of biological development, and again found yourselves in presence of an inscrutable power, shaping matter to the uses of intelligence and will of a higher order. You have endeavored to unbraid the strands of the three-fold cord of life, and a few of you have, perhaps, cut the Gordian knot of its mystery by formulating some atheistic definition or dogma; but the most of you, I trust, have allowed your hearts to expand with the instinct of worship. With intense and growing interest you have studied the mechanism of sensation, and sought to explain how the brain is the organ of the mind, and close to the very sanctuary of the human soul some of you have perhaps echoed the meaningless dictum of the godless philosopher, “Ohne Phosphor, kein Gedanke”—without phosphorus, no thought.

Gentlemen, if your ministrations look not beyond the mechanism of these material bodies, you fall short of the highest attainments—of all high attainment in your profession. The man who shall dare to touch for repair even the varnish of one of those soul-gifted instruments that came from the hands of Straduaris, must himself have the soul of music which belonged to the master. What shall I say of him who, with profane daring, shall enter the holy of holies of a pure human soul on excuse of retouching with base bronze the pure gold of its ornaments? Keep your souls open to every divine influence, as you keep your minds alert

for the discovery of new truth; yield to the impulse which compels every healthy human creature to worship ideal beauty and ideal purity, and you shall be not unworthy the trusts that else you shall cruelly betray.

Now, gentlemen, I commend you to the fortunes your talents, your energy and your perseverance shall deserve and win. Your Alma Mater wishes you success—nay, expects you to take such rank in the profession that she shall be proud to name you her sons. Be diligent in study, endeavoring to contribute your mite to the treasury of the physician's resources; be true to your convictions as men; be loyal to each sacred trust which your profession imposes; be valiant champions of truth and right; cherish only high aims and noble ambitions, and the rewards, richer than wealth, or fame, or happiness itself, which belong to conscious greatness of soul are yours.

Tracheotomy.

BY J. R. JONES, M. D., LEESVILLE.

AT a time when diphtheria is attended with such fatality as the papers are daily recording, anything of a practical nature bearing upon the disease is read with eagerness by the earnest physician; and as the case, of which the following is a report, had some points of peculiar interest, I take pleasure in giving it somewhat in detail:

Miss T. S., of German parentage, living in the country about nine miles from my office, received the disease by direct contagion; at least she kissed a niece who was sick with the disease, and a day or two subsequently she gave evidence of having it herself. On Tuesday, January 4th, she had to go to bed, and on the following Sunday, at 5 P. M., I was called to see her for the first time. The only treatment she had received during that time was from her uncle, a farmer, who possessed a box of family medicine (homœopathic).

I found my patient to be a remarkably large girl and fleshy, especially for her years, weighing about 200 pounds. Her condition was deplorable, being unable to swallow even water. For many hours previous to my visit they allayed her thirst (or rather tried to do so) by dipping a feather into water and brushing it over the tongue and lips. She could not speak, and when I first saw her was struggling for breath, and struggling for

want of it. The whole buccal cavity was lined with a foul-smelling exudate, the tonsils and uvula being entirely out of sight. I brushed the entire surface of the cavity with Monsel's solution of the subsulphate of iron, and soon afterwards removed, without force, large patches of membrane of various degrees of thickness, by means of a forceps. The tonsils were cleaned off entirely, leaving a raw-looking but not a bleeding surface beneath, and the throat was so much liberated that she could swallow a couple of 3-grain quinine pills, and could speak in a hoarse whisper. The nasal cavity was completely blocked up, although a copious discharge of stringy, sanious, sickening-looking stuff constantly proceeded from the nostrils. I gave the family a decidedly unfavorable prognosis, and spoke of tracheotomy as the only chance, but did not urge the operation because it was not a very promising case.

Knowing of a successful case in the neighborhood last spring (of which I gave a report in the May number of the LANCET), the parents were anxious to have the operation performed, so I sent to Detroit early on Monday morning for Dr. N. W. Webber, who arrived about 11 A. M., and on seeing the patient consented to operate, but would not urge it as the case appeared a hopeless one. At 2 P. M. the patient made signs that she wished it performed, as she was rapidly getting worse and felt that she could not live much longer. Her pulse was strong at 100, her temperature $99\frac{1}{2}^{\circ}$, her intellect perfectly clear. Everything being ready, she declined assistance, but stepped upon a chair and thence to the operating table. Ether was administered and the necessary cutting performed, which in her case was considerable. The trachea was covered by adipose tissue, three-fourths of an inch in thickness. Added to that, her neck was very short, and an artery which was severed gave rise to troublesome hemorrhage. The bleeding was with difficulty controlled, after which the trachea was opened through the cricoid cartilage and through at least three of the rings, but the expected relief did not appear, for only a few bubbles of air escaped. Investigation showed the trachea to be thoroughly opened, without a doubt, but so completely filled with the exudate that there was no chance for air to enter through the artificial opening. The introduction of the canula was of no

avail, and we considered it a case to be consigned entirely to nature, and the opinion was given to the family that her remaining time would be brief, probably only a few hours. During the night, she coughed up large quantities of mucus and strips of membrane, and air entered freely through the wound.

Early next morning word reached me that she was much better, but I doubted the reliability of the information, and having some urgent calls to attend to I did not go to see her until late in the day, and was surprised to find the patient sitting up, breathing easily, able to speak distinctly and apparently much improved; but temperature was 102° , pulse 120. In brief, the patient appeared to improve daily, so far as the local trouble was concerned. The trachea never refilled, the throat shed its exudation, the pharyngeal cavity attained its normal size, the pulse remained for several days at or about 66, and the temperature normal.

Our prognosis became more hopeful, and our expectations of recovery very sanguine, when our patient put a stop to pleasant anticipations by quickly and quietly dying, on the tenth day after the operation. I saw her in the afternoon of the day previous, and she appeared to be progressing favorably; but about 3 A. M. she complained of cramps in her feet, and when I saw her at 11 A. M. she complained of pain all over her. Her death took place at 1 P. M., and up to the last she retained full consciousness and had no difficulty with her breathing. For two hours preceding death her heart beat remarkably slowly, 20 beats per minute, but I could not detect any evidences of heart clot.

Although she had some desire for food, it was impossible to get her to take beef tea, milk or stimulants all through her sickness, at first because it hurt a little when attempting to swallow. She would not try to take them for any inducements, persuasive or otherwise. She submitted to the use of nourishing enemata for one night, but they were never retained sufficiently long to prove serviceable. For clear obstinacy she surpassed any patient I ever had anything to do with.

What the result might have been had she taken nourishment it is useless to say, but the probabilities are that the asthenia which was the apparent cause of death might have been prevented.

Although the operation did not save her life, it was in its execution a success, and gave to her ten days of comparative ease, and at least an easy death, for without it death at the time was imminent. During the time that she was under treatment, other members of the family were attacked with sore throats and fever, and one, at least, had the characteristic patches, but the measures used proved effectual in promptly arresting the disease.

From considerable experience with the disease during the last year, I am a firm believer in the efficacy of local treatment in addition to the general supportive measures; and of the various remedies now used and advised which I have tried, Monsel's solution of the subsulphate of iron has proved the most efficient for checking the spreading of the false membrane and causing its removal. Brushed on thoroughly with a camel's hair pencil, or used as recommended by Dr. J. Lewis Smith in his latest edition of "Diseases of Children," it has in my hands proved eminently satisfactory. It does not burn nor irritate, but causes a disagreeable puckering of the throat, and although the patients do not like it, they readily submit to its application from the relief it affords.

Atropia vs. Opium.

BY DR. C. T. SOUTHWORTH, MONROE, MICH.

AT some hour between 12 M. and 9 A. M., Sunday, Feb. 6, Joseph W., a farmer, aged about fifty years, family consisting of wife and six children, took, with suicidal intent, one ounce of the official tincture of opium. At about 10:30 A. M., his wife entered the room and found him in a state of insensibility from which he could not be roused, and immediately sent a messenger for me. I arrived at 1:50 P. M. and found him in a dying condition, with the indications so strongly marked that death seemed inevitable within the next two hours or possibly less.

Nothing could be learned from the wife or family as to the cause of his present condition, but the symptoms were so plainly those of opium poisoning, that I determined to prove the efficacy of atropia as an antidote to opium and to trust to it alone.

The symptoms were respiration 8, labored, jerking and blowing froth from the mouth; pulse 30, weak and fluctuating; lower ex-

tremities cold, and purple to middle thigh, hands and arms cold and purple whole extent to shoulder, trunk cold and maculated; insensible to sinapisms used by the wife; the pupils were contracted down tight, *alae nasi* contracted, and countenance simulating death from strangulation. The capillary congestion was general throughout the whole body. A more perfect case of toxicationis apio would never present itself.

At 2:35 P. M., I administered hypodermically $\frac{1}{15}$ gr. of atropia in aqueous solution. At 3:20 it had no effect and I repeated it, and let the case rest until 5:20, when the pulse was 116, irregular and fluctuating, hands and feet warm, the skin assuming a lighter color and more natural appearance, respiration 20, irregular in time, steady in expansion, the exhalations tremulous, the pupils relaxing slightly. At 5:30 I repeated the injection of $\frac{1}{15}$ gr. and left him. He began to groan at 10 P. M., and at 2 A. M. he asked for drink.

The powerful properties of atropia as an antidote to opium are most clearly and satisfactorily demonstrated in this case, and further remarks are superfluous.

Studies on the Nature of Malaria.

Translated from the *Rivista Clinica de Bologna*, November, 1880.

BY HAL C. WYMAN, M. D.

Professor Physiology, Detroit Medical College.

IN June, 1879, Professors Edwin Klebs and Tommasi Crudeli published the results of their studies on the nature of malaria.

In March, 1880, the latter gentleman published an account of his observations in Sicily on the nature of the *Bacillus malarie*.

Since then the following gentlemen have been elaborating the subject: Prof. Perroncito, *d'ella Scuola Veterinaria di Torino*; Prof. Ceci, *d'ella Università di Camerino*; Prof. Cuboni, *Assistente alla Cattedra di Botanica d'ella Università di Roma*; Prof. Marchiafava, *d'ella Università di Roma*; Drs. Valenti, Ferraresi, Sciamana and Piccirilli, *Medici Romani*. Here are the results obtained by these new observers:

(1) In the malarial districts about Rome the *Bacillus malarie* is found fully developed; and there is little difficulty in producing them in large numbers by artificial cultivation. They have not been found in the salubrious districts of Lombardy. (2) This

Bacillus accumulates in such quantities in the air about marshes, during the hot days of summer, that special apparatus is not necessary to collect them. It may be found in abundance in the perspiration on the hands and forehead. (3) During the acme of fever the sporules of *Bacillus malarie* have invariably been found. (a) In the blood of rabbits exposed to malarial infection. (b) In blood drawn from the veins of men attacked with malarial fever. (c) In the blood taken from the spleen of these patients by a process devised by Dr. Sciamana. (d) By cultivation, perfectly developed bacteria (*Bacillus malarie*) have been obtained from this blood. (e) The same results have been obtained by cultivation of the spleens of persons dying of pernicious fever. Cultivation of the spleens of persons dying of other diseases in non-malarious districts did not reveal the presence of *Bacillus malarie*. (4) If blood taken from the veins of persons attacked with malarial fever is injected into the subcutaneous tissue of dogs, these animals will be seized with typical malarial fever. (5) In every case when the blood has been taken from the veins of fever patients during the cold stage or period of invasion, it has been found to contain *Bacillus malarie* fully developed. During the acme of fever, on the contrary, the *Bacillus* gives place to sporules.

This circumstance is of great importance, analogous in nature to the *spissillum* which causes typhus fever. It gives us an explanation of the results obtained by Prof. Marchiafava in 1879, who examined immediately after death the blood of five persons who died from malarial fever. In three of these the blood of the heart and veins contained large numbers of fully developed *Bacillus malarie* while in the other two cases not a single perfect *Bacillus* could be found; but there were great abundance of spores.

Now, the recent observations at Rome lead us to believe that these three first cases died during the cold stage of the fever, and that the two other cases died during the acme or hot stage.

Experiments on animals have demonstrated that the favorite seat of the malarial parasite is the spleen and marrow of bones, organs which show the most important alterations in persons who have died of malarial fever. It is probable that generations of

parasites change rapidly and spread in these organs according to the idiosyncrasy of the patient, and perhaps, also, according to the nature of the marshes in which they originate. This may explain the difference observed in the duration of intromissions.

The fever probably begins the moment the parasites leave the spleen or marrow of bones and fill the blood. Possibly the cold stage is due to the irritation of the vaso-motor nerves caused by this army of invaders in the circulating system. The conditions most favorable for their development are found in the blood (elevated temperature, stores of oxygen, etc.) and it would not be strange if their destruction was likewise accomplished there. Tissue and blood changes as displayed in the various processes of assimilation, secretion and excretion concern the parasites as well the febrile temperature.

Prof. Tommasi Crudeli is engaged in his laboratory with still higher studies concerning the relations of *Bacillus malarie* to malarial fevers. He hopes to show that the revolution of the fever is due to the elimination of the spores, and disappearance of the parasites from the circulatory system; and by ingeniously drawing the infected blood from the spleen, ascertain the influence of that organ upon the duration of the intermissions and remissions peculiar to malarial fevers.

Remarks Upon Two Cases of Sporadic Dysentery.

BY JOHN FLINTERMANN, M. D.

Read before the Detroit Academy of Medicine.

GERHARDT, in his celebrated work on diseases of children, says: "Sporadic dysentery gives symptoms of acute enteritis, with some feverish paroxysms, the children uttering cries of intense pain. Very early the signs of quick resorption of the parenchymatous fluids appear, the face collapses, the cornea loses its brightness, the evacuations become slimy and watery, streaked with blood, or showing blood in spots."

"This disease proves fatal in nearly all cases. While epidemic dysentery shows, of course, greater mortality in children than in adults, yet it allows of much better prognosis than the sporadic form of the disease, even where the proper treatment has been instituted early in the case."

Having had occasion to see two cases of sporadic dysentery, both ending fatally, I concur most fully in the statements of Dr.

Gerhardt, who is impressed in the same manner with the severity of the symptoms with which these cases are accompanied. Every physician who has ever been in the painful situation of having been called to attend a patient afflicted with this disease, and knowing the danger of it, will gladly accept any opportunity to learn anything in regard to it from his brother practitioners. Therefore I may be allowed to give you a history of a case that I recently attended.

C. S., a child 13 months old, was taken sick on the 30th day of August, 1880, with a slight diarrhoea, caused by eating some fruit that had been given it by children in the house. The parents neglected to call in medical help until two days later, when I saw the child, who was then suffering from a dysentery, having a constant desire to evacuate the bowels, there being such tenesmus that the child was unable to rest for a single moment. The evacuations were slimy, streaked with blood and very scanty.

According to the history given by the parents of the child, he had always enjoyed good health, was fleshy and of good physique.

The child looks pale and has already lost weight. The skin is dry and has lost its elasticity. The temperature of the body is moderately high. The child vomited in the beginning of the disease, but is now able to retain the food. The urine does not show any abnormality. I prescribed according to the condition of the case, but, I confess, without any relief to the patient. All the remedies used failed to better the condition of the patient—the diarrhoea grew worse by degrees, the child crying from severe pain and tenesmus, which continued to increase in severity until death kindly came and ended the suffering.

During the whole time of this sickness I carefully examined the abdomen from day to day. It was never bloated, only tender in the left inguinal region and in the right side over the cæcum.

The discharges were in the end more bloody, but I never found any membrane. The odor of the discharges was never intense. During the last two days of the child's life the urine was scanty, owing, no doubt, to the weakened state of the heart. The fifth day of September, the child was more or less unconscious, crying and at times ut-

tering loud shrieks, simulating the cry encephalic, so that the whole appearance of the child was that of a patient suffering from meningitis, and a careless observer might have taken it for a case of meningitis if the symptoms arising from the inflammation of the colon had not clearly shown the nature of the case.

The constant contraction of the colon and sphincter ani expelling the bloody and slimy stools partially mixed with fæces; the loss of the parenchymatous fluids from the diarrhœa; the lessened secretion of the urine; the severe pain and the restlessness caused thereby; and the accumulation of urea in the system on account of the decreased urinary secretion, are together amply sufficient to cause death in such cases. Whenever in similar cases a high temperature supervenes at the outset, death is certain.

Another case of this same disease was observed by me two years ago as severe as the one just reported, the only difference being that death did not occur so early, the whole disease lasting three weeks, reducing the child to a perfect skeleton. Both cases had the same unyielding tenesmus, lasting from the commencement of the disease until the end.

I am inclined to believe that these cases of sporadic dysentery occurring [in childhood, are in some way modifications of a disease caused by a poison similar to or identical with that which causes typhoid fever. The reasons for this opinion I find in the fact that such cases usually occur at the time of the year when typhoid fever is prevalent, and in the similarity of the external conditions by which such diseases are usually caused. In one case I was aware of the possibility of there being some connection with typhoid fever, and I found my supposition proved by the appearance of a roseola on the skin of the trunk. In the same house with a child that I treated there had been a lady who had had typhoid fever while the child showed all the symptoms of acute diphtheritic inflammation of the colon. Now the child could not be said to have typhoid fever, although it had the roseola of typhoid fever. I am therefore inclined to think that all these cases are modifications of typhoid fever, because we must not forget by what way the typhoid fever poison enters the body. Children nursed by their mothers will not

be liable to introduce the poison by way of the mouth to the intestine. Clearly the way in which it would enter the body in such cases must be by the anus. The poison will be carried there by means of different objects, such as unclean diapers—by using the same bed or the same clothing as the typhoid patient used, etc., etc. The poison so entering the body per anum soon causes inflammation of the rectum and produces symptoms similar to those of dysentery, but does not, after all, cause true dysentery, so that many cases of sporadic dysentery in childhood may be, after all, nothing more or less than the typhoid process in the mucous membrane of the rectum—the poison being modified by the soil on which it first adheres. If, therefore, the typhoid poison enters the system by the mouth, then we shall have typhoid fever as the result; or, if it enter by the anus, then are we sure to have rectitis simulating dysentery, or we shall have diphtheritic inflammation of the colon.

I am fully aware of the hypothetical value of my views as to the origin and nature of sporadic dysentery; still, by more facts, we shall be able to decide this question. Of one thing we can be certain, that the same poison does not have the same effect on different tissues, and the very different tissues on which the poison may act will give the different diseases. It is not, therefore, the poison alone, but the tissue and the poison, which gives character to the disease. Of course, all this is certainly modified by the individuality of the patient and the concomitants of surrounding circumstances.

CORRESPONDENCE.

Editor of the *Detroit Lancet*:

SIR—The case reported in the February number of *THE LANCET*, p. 350, and of which I promised to make further notes, is still doing nicely. On January 2, 1881, the mother noticed that the mammas were enlarging considerably, and on the 4th I saw her; they were then about the size of ordinary hulled walnuts. Upon examining the vulva I found it was very large for a child of that age, the labia being as thick as we ordinarily see in a girl of 13 to 14 years. On the 5th she again menstruated, the flow, however, only lasting two days. On the 3d of February there was again a few drops passed from vagina, but this time there was no mammary

enlargement, nor other untoward symptoms. The child is growing finely and appears perfectly healthy. I should like to watch this case further, but as the family left here yesterday for Texas, this will be impossible.

C. H. TIDD, M. D.,

Feb 17, 1881.

Geneva, Iowa.

The Clinical Resources of Vienna.*

VIENNA, January 29, 1881.

MY DEAR DOCTOR.—In accordance with your request, I have looked up the question, and now send you a list of the courses given in the General Hospital of Vienna, and in the Poliklinik. The latter is a large dispensary, situated in the immediate neighborhood of the hospital, where lectures are given and clinics held by a very able corps of professors and doctors. In addition to these two institutions, there are situated in this quarter of the city the Foundling Asylum, St. Ann's Hospital for children, and the Maria Theresian Hospital for Diseases of women, all of which are accessible for medical men. The Rudolph's Hospital lies in quite another part of the city. Some excellent courses are given there, too, but it is little visited by the American physicians on account of its remoteness from the *Isafstadt*, the suburb in which most of our countrymen live, who are pursuing their medical studies here. I have preferred to simply translate the titles of the lectures as they appear on the bulletin board of the hospital.

As you are connected with a hospital in Detroit, the following statistics in reference to the General Hospital of Vienna may be of interest to you. The figures are taken from the hospital report for the year 1879.

Number of patients received in hospital during the year: males, 14,140; females, 8,928; children, 623; total, 23,691. Total expense incurred, 653,562 gulden. Cost per patient, 27 $\frac{5}{8}$ $\frac{6}{8}$. Cost per diem for each patient, 97 $\frac{6}{8}$ $\frac{8}{8}$; the gulden being equivalent to 40 cents. Number of beds in hospital, 2,000. The lying-in department of the hospital is not included, either in estimates of expenses, of patients received or of capacity. Over 10,000 births occur here annually, and the facilities for the practical study of midwifery offered by this institution are, I venture to say, unequaled in the world. Connected

with each department of the Hospital are dispensaries for the treatment of out-door patients. These patients are exhibited in the several clinics, but are not included in the foregoing estimates. From these figures you can form some idea of the amount of material placed at the disposal of the medical student in this one institution.

I append for your consideration a list of patients received into the Hospital, suffering from diseases which come within the category of your particular specialty, with results:

| | Cured. | Im- proved. | Un- cured. | Died. |
|---------------------------------|--------|----------------|---------------|-------|
| Coryza | 2 | .. | .. | .. |
| Catarrhus narium chronicus... | 2 | 1 | .. | .. |
| Epistaxis (e causa ignota)..... | 7 | .. | .. | .. |
| Hydrops antri highmori..... | 1 | .. | .. | .. |
| Thyreoiditis..... | 2 | 1 | .. | .. |
| Catarrhus laryngis acutus..... | 33 | 4 | .. | .. |
| Catarrhus laryngis chronicus... | 5 | .. | .. | .. |
| Perichondritis laryngis | 1 | .. | .. | .. |
| Œdema glottidis..... | 4 | .. | .. | .. |
| Ellura laryngis | 8 | 10 | 5 | 10 |
| Cicatrice laryngis..... | .. | 2 | .. | .. |
| Stenosis laryngis | 8 | 10 | 4 | 5 |
| Fistula laryngis | 1 | .. | .. | .. |
| Catarrhus tracheæ | 3 | .. | .. | .. |
| Stenosis tracheæ..... | 4 | 5 | .. | 3 |
| Croup | .. | .. | .. | 2 |
| Catarrhus bronchitis acutus... | 412 | 21 | 4 | .. |
| Catarrhus bronchitis chronicus | 34 | 85 | 11 | 3 |
| Bronchirrhæsis..... | .. | 5 | .. | 1 |
| Pneumonia..... | 317 | 19 | 8 | 114 |
| Emphysema pulmonum | .. | 154 | 27 | 69 |
| Gangrena pulmonum | .. | .. | .. | 8 |
| Œdema pulmonum acutum | .. | .. | .. | 2 |
| Œdema pulmonum chronicum..... | .. | .. | .. | 1 |
| Hæmoptoe | 96 | 10 | 1 | 19 |
| Asthma (e causa ignota)..... | 3 | 1 | 2 | .. |
| Pleuritis..... | 111 | 138 | 19 | 47 |
| Pneumothorax | .. | 3 | .. | 5 |
| Pyothorax | .. | 1 | .. | 2 |
| Pneumopyothorax..... | .. | .. | .. | 1 |

Affections of respiratory organs, not including tuberculosis, taken from hospital report for year 1879.

Clinics, with lectures on special medical Pathology and Therapeutics are held five times weekly from 8 to 10 A. M., by Professors Duchek and Von Bamburger.

Courses in Physical Diagnosis (percussion and auscultation) are given by their four assistants during the entire semester.

Courses in Auscultation and Percussion are given likewise by Prof. Schrotter and Drs. Kolisko, Rollet and Heitler.

"Theoretical lectures on special medical Pathology and Therapeutics, with practical demonstrations." Tuesday and Friday, by Prof. Drasche.

"Epidemics in general and particular." Four times a week by the same professor.

"Internal diseases, with special consideration of affections of the heart and lungs and

*This letter was handed us for publication by Dr. E. L. Shurly. It will interest some who may think of visiting Vienna, or who desire to know its medical resources.

exercise in their diagnosis." Five times weekly in the Poliklinik, by Prof. Ritter von Stofella.

"Internal medicine, with special reference to Percussion and Auscultation." Five times weekly, by Dr. Bettelheim.

"Pathology and Therapeutics of Tuberculosis." Saturday and Sunday, by the same.

"The most recent methods of Clinical Diagnosis and Therapeutics." Twice a week, by Dr. Breuer.

"Diagnosis of internal diseases." Five times weekly, by Dr. Nathan Weiss.

"Introduction to physical diagnosis." Saturday and Sunday, by Prof. Dr. Samuel Stern.

"Practice in diagnosis." Five times weekly, by the same.

"Subjective Symptomatology." Monday and Wednesday, by the same.

"Laryngoscopy and Rhinoscopy, with practice on healthy subjects and on patients." Daily from 10 to 11 A. M., by Prof. Dr. Schrotter.

"Laryngoscopy, Rhinoscopy and affections of the larynx, the air channels and the throat." Five times weekly, from 11 to 12 A. M., by Prof. Dr. Carl Stork.

"Laryngoscopy and Rhinoscopy, with practical demonstrations." Five times weekly in the Poliklinik, by Prof. Dr. Schnitzler, 8 to 9 A. M.

"Systematic lectures on affections of the larynx and neighboring organs." Five times weekly, from 9 to 10 A. M., by the same.

"The most recent methods of investigation and treatment in diseases of the heart and lungs." Saturday, 9 to 10 A. M., by the same.

"Diseases of the organs of respiration and circulation." Saturday and Sunday, by Dr. Moriz Heitler.

"Lectures on Hydrotherapeutics and diet cures in acute and chronic diseases." Three times a week, by Dr. Wilhelm Winternitz.

"Diagnosis and Therapeutics of diseases of the stomach and intestines." Twice a week, by Dr. Leopold Oser.

SURGERY.

"Surgical Clinics with lectures on special surgical Pathology and Therapeutics." Five times weekly, by Professor Theodore Billroth and Leopold Dittel, in the clinic of the late Prof. Freisherr von Dumreicher and by Dr. Neudorfer in the Poliklinik.

Private courses are given daily by their assistants, embracing instruction in operative surgery, bandaging, the treatment of fractures, dislocations and deformities, orthopedy and demonstration of operations on the cadaver.

"Lectures on the diseases of the prostate and strictures of the urethra." Saturday and Sunday, by Prof. Dittel.

"On diseases of the urinary organs, with special reference to chemico-microscopic diagnosis and practice in catheterisation." Five times weekly, from 11 to 12 A. M., in the Poliklinik, by Dr. Ultzmann.

"Surgery of the urinary and sexual organs and of the rectum, with demonstrations on patients." Twice a week, by Dr. Iurie.

"Surgical anatomy of the urinary and sexual organs and instruction in the operations upon the same." By Dr. Iurie.

"On so-called minor surgery, with demonstrations and practical instruction." Daily, in the Poliklinik, by Dr. Hofmohl.

"Course in plastic operations, including osteo-plastic resections, resections of nerves and intestine and other 'not typical operations,' with practice on the cadaver." Daily, by Dr. Wolfier.

"The antiseptic treatment of wounds, with demonstrations." Once a week, by Dr. Mikulicz.

NERVOUS DISEASES.

"Clinic with lectures on diseases of the nervous system and on forensic psychology." Five times a week, by Prof. Dr. Theodor Meynert.

"Structure and functions of the central nervous system." Once a week, by the same.

"Investigations and experiments in the physiological and pathological anatomy of the central nervous system," under the direction of Prof. Meynert, daily.

"Affections of the brain and spinal cord." Saturday, by Prof. Moriz Bundikl in the Poliklinik.

"Electro-therapeutics." Sunday, by the same.

"Clinical craniometry." Twice a week, by the same.

"Pathology and therapeutics of nervous diseases." Five times a week, by Prof. Moriz Rosenthal.

"Chronic nervous diseases and electro-therapeutics. Five times a week, by Prof. Friedrich Firber.

"Nervous diseases." Lectures and clinics five times weekly, by Dr. Nathan Weiss.

THE EAR.

Lectures and clinics on the affections of the ear and their treatment. Five times a week, by Prof. Adam Politzer; six times a week by Prof. Joseph Gruber; six times a week by Dr. Urbantschitch in the Poliklinik.

THE EYE.

"Theoretical and practical instruction in the treatment of affections of the eye." Five times weekly, clinic from 10 to 11, lecture and dispensary from 11 to 12, by Prof. Ferdinand Ritter von Arlt. Five times weekly, clinic from 10 to 11, lecture and dispensary from 11 to 12, by Prof. Carl Stellwag. Five times weekly, clinic from 8 to 9, dispensary from 9 to 10, by Prof. Edward Jaeger, Ritter von Jaxthal.

"Practical instruction in the surgery of the eye and the use of the ophthalmoscope. Five times weekly, by Prof. Jaeger.

"Clinic of diseases of the eye." Five times weekly, by Dr. August Ritter von Reuss in the Poliklinik.

"Clinic of diseases of the eye combined with systematic lectures on the treatment of the same." Five times weekly, by Dr. Jacob Hock in the Poliklinik.

"Theoretical and practical instruction in the use of the ophthalmoscope. Five times weekly, by Dr. Hock.

"Lectures on certain topics connected with the treatment of the eye." Saturday and Sunday, by Dr. Hock.

"Diagnosis, pathology and therapy of affections of the eye." Five times weekly, from 8 to 9, by Dr. Otto Bergmeister.

"Anomalies of refraction and accommodation." Saturday, by Dr. Bergmeister.

"Practical instruction in the treatment of the eye combined with lectures." Five times weekly, by Prof. Ludwig Mauthner.

"Senile alterations in the structure of the eye." Four times weekly, by Dr. Nathaniel Feuer.

"Refraction and accommodation." Daily, by Dr. Feuer.

GYNÆCOLOGY, MIDWIFERY, DISEASES OF CHILDREN.

Gynæcological and obstetrical clinics with theoretical and practical instruction in midwifery and in the affections of infants and female sexual organs. Five times weekly,

by Prof. Carl Braun, Ritter von Fernwald and by Prof. Joseph Spath.

"Gynæcological casuistic and manual explorations." Saturday, by the same professors.

"The operations involved in gynæcology and midwifery demonstrated on the cadaver." By the assistants of the above-mentioned professors.

"Operative midwifery and gynæcology." Six times weekly, by Prof. Carl Meyerhofer.

"Systematic lectures on diseases of the female sexual organs." Saturday and Sunday, by Dr. Marcus Funk.

"Gynæcological course." Five times weekly, by Dr. Funk.

"Gynæcological course." Saturday, by Dr. Rudolph Chrobak.

"Operative midwifery with practice on phantom and cadaver." Five times weekly, by Dr. Carl Baron von Rokitsansky.

"Gynæcology with Dispensary." Six times weekly, by Dr. Rokitsansky in the Maria Theresian Hospital.

"Gynæcological operations with demonstration on the cadaver." By Dr. Gusbare Lott.

"Gynæcology with special reference to the anatomy and physiology of the female sexual organs." Five times weekly, by Dr. Wilhelm Schlesinger.

"On exudations and hemorrhagic tumors in the female pelvis." Sunday, by Dr. Schlesinger.

"Clinic in gynæcology." Five times weekly, by Dr. Ludwig Brandl, in the Poliklinik.

"Operative gynæcology, with practice on the cadaver." Three times weekly, by the same.

"Gynæcological propædæutic and casuistic." Three times weekly, by Dr. Julius Ritter von Massari.

"Clinical lectures on diseases of children." Five times weekly, by Dr. Hermann Widerhofer, including the surgical propædæutic, once a week, by Dr. Weinrechner, in St. Ann's Hospital for children.

"Vaccination and diseases of infants and nurses." Twice a week, by Director Dr. Carl Fridingar, in the Foundling Asylum.

"Diseases of children." Three times a week, by Prof. Max Politzer.

"Diseases of childhood, with special reference to the period of infancy." Daily, by Dr. Lazar Furth, in the Poliklinik.

"Clinical lectures on the pathology and treatment of diseases of children." Daily, by Dr. Alois Monti, in the Poliklinik.

"The treatment of children's diseases." Three times weekly, by Dr. Ignaz Eisenschütz.

DISEASES OF THE SKIN AND SYPHILIS.

"Pathology and therapy of diseases of the skin and syphilis." Five times weekly, by Prof. Moriz Kaposi.

"Pathology and therapy of diseases of the skin and syphilis." Five times weekly, by Prof. Isidor Neumann.

"Pathology and therapy of skin diseases." Five times weekly, by Dr. Hans Ritter von Hebra.

"Clinic of diseases of the skin and syphilis." Five times weekly, by Prof. Heinrich Ausspitz.

"Diseases of the skin and syphilis." Saturday, by Prof. Gustave Wersheim, in the Rudolph's Hospital.

"Lectures on the hygiene, diet and treatment of Syphilis." Twice a week, by Prof. Carl Sigmund, Ritter von Illanor.

"Lectures on syphilis and female diseases." By Prof. Hermann Zeissel, three times a week; clinics, twice a week.

"Therapy of syphilis and female diseases." Friday and Saturday, by Dr. Emanuel Kohn.

"Syphilis with demonstrations on patients and preparations." Three times weekly, by Dr. Ladislaus Tajda.

"Recent methods of treatment and of instrumental investigation in blenorrhagic affections of the genito-urinary organs." Twice a week, by Dr. Vajda.

Besides numerous other courses in anatomy, physiology, histology, embryology, pathological anatomy, physiological and pathological chemistry, pharmacology, methods of chemical analysis, etc., etc.

The Detroit Lancet.

LEARTUS CONNOR, A. M., M. D., EDITOR.

Retreat in Medical Reform.

IN a recent circular, the Bellevue Hospital Medical College announces its determination to return to its old platform of conferring the degree of M. D. Henceforth students may obtain the degree at this school "after three years' pupilage, after eighteen years of

age and attendance upon two full courses of lectures, the last being at the Bellevue Hospital Medical College."

It must be remembered this college announced that the class of this year would be excepted from the requirements of the advance movement. As the year had not passed when the college receded from its requirements, one naturally asks, was it not all wind? Did any advanced requirements ever come into operation? Some one has asked, "was it not all an advertising dodge to bring the name of the college into notoriety in new circles?" No matter what the reason for taking the first step or the second one, the fact remains that a large corporation started to do a certain work and drew back ere it entered upon it. Was it frightened at the lions in the way? Surely men of the wide professional acquaintance of the managers of this school could not have utterly blundered in supposing that the profession would support a high grade school.

Let us look a little more closely at the matter, and see if some lessons are not to be learned:

First, be it remembered that Bellevue did not divide its classes in its preparation for a three years' course. The same lectures by about the same number of teachers was given as in the old system. We saw no provision made for the development of separate, distinct classes, in separate rooms, graded after the plan of our best literary colleges. A regular graded course does have positive attractions for the best and most logically trained minds. This, as we read the announcements, was not furnished by Bellevue. We do not learn that the facilities for laboratory work in chemistry, in physiology and in pharmacy were made such as to compel the student to obtain such practical instruction. This practical work, not being given by any of the other colleges in New York, if given in well appointed laboratories by Bellevue, would have diverted many of the very best students from both rival colleges.

Further, it does not appear the provision was made by which the students would be compelled to study every branch of clinical medicine and surgery, with a competent teacher at the bedside or clinic room, in small sections. In a word, no sufficient means for the better training in practical physiology, in practical chemistry, in practical pharmacy,

in clinical medicine, in small sections, taking the students one by one. Hence, the students and profession saw no reason why they should patronize this school simply because it announced a preliminary examination, and that after a certain time attendance upon three years in college. While fees were multiplied, facilities for obtaining a better practical training were continued as before.

Then there was a wide-spread feeling that the school did not mean business. This may have been incorrect, but judged by the sequel it does not seem to have been unjust. For ourselves, we think it is apparent that schools which desire to obtain the advantages of an advanced standard in medical education must first count the cost and provide for it before they begin any reform. Second, their reforms must be real, furnishing to the profession and the better class of medical students facilities for practical work and practical training, such as cannot be obtained elsewhere. Then, they must decide to do their teaching in small classes. It is impossible to give the best training to students in large classes. Lots of systematic, practical, laboratory, class room and clinical work is the demand of any proper reform in medical education. The school which is not prepared to give it had better not talk much respecting reform in medical education. These things well done will soon give the college furnishing them a reputation which will attract to its doors all the students of the very best character that it can teach in this way. But the financial remuneration to the teachers in such a system must always be ruinously small, until the colleges become endowed. Those desiring mostly the stimulus of lecturing to and operating before large classes and the money from their fees, will ever stick to the old ways which have filled their pockets with money and their heads with the applause of the multitude.

Illinois State Board of Health on the Requirements of a Medical College that shall have a "Good Standing with that Board."

Some time since the Illinois State Board of Health appointed a committee to investigate the subject and determine the minimum requirements for a medical college to be held in "good standing" by said board. It will be remembered that the law under which this board is organized permits it to fix the

standard by which medical diplomas may or may not be recognized as qualifying their possessors to practice medicine in the State of Illinois. The committee entered into an extensive correspondence with prominent medical men and educators. The results of their investigation they embody in a report. From this we extract the following, (*Chicago Medical Review*, Feb. 20, 1881:) Minimum requirements for a medical college to be held in good standing: I. Conditions of admission to lecture courses: (1) Credible certificates of good moral character. (2) Diplomas of graduation from a good literary and scientific college or high school; or lacking this, (3) A good thorough examination in the branches of a good English education, including mathematics, English composition and elementary physics or natural philosophy. This provision will not be required before the close of the lecture sessions of 1882-3.

II. Branches of medical science to be included in the courses of instruction: (1) Anatomy. (2) Physiology. (3) Chemistry. (4) *Materia Medica* and Therapeutics. (5) Theory and practice of medicine. (6) Surgery. (7) Hygiene and Sanitation. (8) Medical jurisprudence.

III. Length of regular or graduation courses: (1) The time occupied in the regular courses or sessions from which students are graduated, shall not be less than five months, or twenty weeks each. (2) Two full courses of lectures, not within one and the same year of time, shall be required for graduation with the degree of doctor of medicine.

IV. Attendance and examinations or quizzes: (1) Regular attendance during the entire lecture courses shall be required, allowance being made only for absences occasioned by the student's sickness, such absences not to exceed twenty per cent. of the course. (2) Regular examinations or quizzes to be made by each lecturer or professor daily, or at least twice each week. (3) Final examinations on all branches to be conducted, when practicable, by other competent examiners than the professors in each branch.

V. Dissections, clinics and hospitals: (1) Each student shall have dissected during two courses. (2) Attendance during at least two terms on clinical and hospital instruction shall be required.

VI. Time of professional studies before graduation shall not be less than three full years, including the time spent with a preceptor, attendance upon lectures or at clinics and hospital.

VII. Instruction: The college must show that it has a competent and sufficient corps of instructors and the necessary facilities for teaching, dissections, clinics, etc.

While it may be said that the foregoing is a low standard, it is clear that but very few medical colleges at all fulfill its principal condition. We are glad that so much has been asked and we hope that it may be required, and the diplomas of all schools that do not conform to at least this much, be thrown out and such of their holders as desire to practice in the State of Illinois be required to pass an examination.

This board is in entire harmony with the efforts of the American Medical College Association, to maintain an honest standard of medical education and to cause as much of an advance as possible.

Headaches—A Note on Their Treatment by Malt Extract.

There is a class of headaches originating in the indigestion and other disorder often following or accompanying over-exertion of mind or body. In many of these cases extract of malt, when taken just as the attack is beginning seems to act like a charm. The symptoms of gastric and cerebral disturbance rapidly vanish and the patient is able to attend to his or her work as if nothing had happened. It seems to have a far better effect than the ferment from the pig's stomach or that from the pancreas or that from the fowl's gizzard. Our explanation of the phenomena is something like the following: In the pathological state above alluded to, the secretion of pepsin, pancreatic and intestinal juice is either partially or wholly stopped, or partially or wholly perverted. The same may be said of the hepatic functions. Bile is eliminated from the liver less perfectly. Its glycogenic function is impaired. The transformation of albumens into urea is checked. Let now some diastase in solution in glucose be introduced into the stomach and observe what follows. The starchy elements of food which may be in the stomach are rapidly transformed to glucose. This with that accompanying the malt, is rapidly absorbed and

carried to the liver. At once, the secretion of pancreatic intestinal juice is increased. As the undigested amylaceous, oily or albuminous food passes into the intestines it is speedily reduced to a condition that permits of its absorption by the lacteals and blood vessels. The activities of the liver are resumed, waste matters eliminated, reserve food stored up as glycogen, and the albumens transformed in the usual manner.

As a result of all this and more, all abnormal irritation is removed from the abdominal organs, the blood is supplied with an amount of nutriment sufficient for the activities of all the organs, and especially the brain, and lastly, the currents of blood under the direction of healthy vasomotor centres run hither and thither, as required by the varying activities of the various apparatuses, glands and systems of the body. Thus abnormal irritation is removed, and the brain fed with an abundant supply of good blood.

Other agents than the extract of malt may accomplish this end as well, but we have never met any at once so safe, so pleasant and so efficient. The good malt extracts we have found of marked value in a variety of cases confirmatory of the general experience of the profession. But we have only of late learned their value in the class of headaches to which we now direct attention.

Qualified Quacks.

The following is from the editor of the *Canada Lancet*, Feb. 1st, 1881. It is so pertinent and so true that we give it this prominent position. It will be remembered that these are the observations of one who lives in a land that has long boasted of a Medical law:

"There are a certain number of medical practitioners whose names are entered on the medical register of their respective Provinces as duly qualified and licensed practitioners in medicine, but who nevertheless so conduct themselves, publicly and privately, as to fully merit the distinctive title of "Qualified Quacks." Such individuals are much more numerous than is generally supposed, and instead of being on the decrease, they are unhappily on the increase. So much is this the case, that it almost inevitably leads to the conclusion, that the more quackery is suppressed outside of the pale of professional license, the more rampant and exuberant does it become within. Although to some

minds it may seem a paradox, it is nevertheless true that a medical man may be fully and legally qualified, and yet a quack in the most objectionable sense of the term. Some persons seem to think that as they have acquired the legal right to follow their professional calling, they are at liberty to act as their personal judgment may dictate. This is, however, a very mistaken idea. No individual, no matter what his profession, is free to exercise his calling, without reference to the well understood rules, codes, or canons of the body to which he belongs, and those who violate the rules and regulations laid down for the internal government of the respective bodies to which they belong are (in all professions but that of medicine) liable to certain penalties for their offences. The barrister may be deprived of his gown, the clergyman may be disrobed, or the holder of Her Majesty's commission in the army or navy may be cashiered, for unprofessional or unworthy conduct, but the erring physician or surgeon can be reached only by the voice of public opinion, and as in many cases the public is unable to see the true inwardness of the cunning arts of quackery, it not unfrequently approves where censure should be meted out."

We quote the following from the *London Lancet* of April, 1880, in regard to this subject, every utterance of which we have in our own capacity experienced, and which we fully and unequivocally endorse :

"Scarcely a day passes in which we do not receive earnest appeals and remonstrances from acknowledged members of the profession against the misconduct of qualified quacks who advertise in the lay papers, send out circulars, and resort to the most flagrantly disreputable methods of toutng for public patronage. It would be an extreme measure to hold the perpetrators of these offences against etiquette, and we take leave to say decency, up to the contempt they deserve, and we are, for the present, compelled to treat the just complaints of our correspondents with a reserve which is altogether opposed to our own feelings, and must, we fear, in a large number of instances, appear ungracious, or possibly, even, in some instances, may be misconstrued to imply a certain kind of acquiescence in the practices they denounce. Certain it is that from some cause, the evil against which the

profession needs to make a new and determined stand is on the increase. It is difficult to take up a daily or weekly paper without finding advertisements aimed more or less directly to bring practising members of the profession under public notice as claimants to special favor. This is an evil which derives the strength by which it flourishes from the doubtful, though not easily denounceable, proceedings of men who are themselves respectable, but indirectly encourage the artifices of others who are not. It is vain to iterate the one received axiom that "no respectable member of the medical profession advertises," when the columns of the daily newspapers abound with advertisements of works bearing sensational titles, and addressed to the public by medical men, of instruments, preparations, and appliances, advertising, if not *intended* to advertise, the names, qualifications, and addresses of men who are not only engaged in, but who court practice? Those who do such things should think how much beyond their own personal burden of responsibility is incurred by the course they take. Under the shadow of this practice of indirect advertising, carried on by men who are respectable and even eminent members of the profession, has sprung up the practice of open advertising by qualified quacks. If there were no respectable transgressors in this respect, it would be easy to denounce the whole body of "advertising doctors" as unworthy of public confidence; but, as the case now stands, whenever this wholesale denunciation is made, there is the consciousness that the next post may bring cuttings from newspapers showing how fully qualified and really good men are among the delinquents."

Memoranda.

Dr. George A. Otis, Surgeon U. S. A., died Feb. 23d, of apoplexy. At the time of his death he was engaged in preparing the third volume of the *Surgical History of the War of the Rebellion*. His efficient labors in connection with the surgical section of the Army Medical Museum are well known.

To speedily terminate chloroform narcosis, Dr. Scheimer irritates the nasal mucous membrane by means of a roll of paper either simple or dipped in ammonia.

Dr. J. Fulton, editor of the *Canada Lancet*, has been appointed professor of surgery in Trinity Medical College by Google

Prof. Francis Carter, M. D., Dean of the Faculty of Starling Medical College, is dead. Starling Medical College has lost one of its best friends and warmest supporters.

The New York State Medical Society has appointed a committee to consider the whole question of desirable change in the code of medical ethics, and present to the society next year the results of their investigations, and make to the society such suggestions as may seem proper to them. The members of the committee are W. C. Wey, M. D.; C. R. Agnew, M. D.; S. O. Vanderpoel, M. D.; W. S. Ely, M. D.; H. G. Piffard, M. D. As this matter concerns the entire profession we hope these gentlemen may give it such attention as its importance demands. We suspect it will appear that the code is better than those who do not keep it and that no code will do such sinners any good.

By resolutions, unanimously adopted at the N. Y. Academy of Medicine, this body states that the uncleanly condition of the streets of New York is an efficient factor in increasing the malignity of many diseases, and thus contributes to the present alarming death rate. The public is earnestly warned of the danger of the existing state of these streets.

The first commencement of the Michigan College of Medicine was held at Whitney's Opera House, March 3d. Twenty-eight graduates received the degree of doctor of medicine. An address to the public was given by the Rev. T. B. Forbush, and one to the students by Prof. H. F. Lyster, M. D. At the close of the exercises a banquet and reception were given the graduates and the friends of the college, by the faculty, at the residence of Dr. Brodie.

The thirteenth annual commencement of the Detroit Medical College was held at the Detroit Opera House, March 10th. Twenty-seven graduates received the degree of M. D. Addresses were given by Prof. A. B. Lyons, M. D., and Rev. E. L. Rexford, D. D. After the exercises the faculty gave a banquet and reception to the graduating class, alumni and the friends of the college at the Abstract building.

Of eighty cases of cerebral abscess recorded by Lebert, twenty were due to otorrhœa; in Schott's forty cases, otorrhœa occurred thirteen times; of Meyer's eighty-six cases, twenty were caused by otorrhœa.

In a late address to the New York Academy of Medicine, Dr. Fordyce Barker said "that he doubted whether in any former age the medical profession had been held in so high esteem, and whether in any other city in the world it held so high a position socially or was on the whole better remunerated for its labor than in New York. Many of our wealthy people do not content themselves by paying the bills sent them, but often send a generous honorarium." Happy profession of New York! Let us all emigrate there forthwith. Honor, glory, social eminence, money, even more than asked for. Such are the rewards of the profession in that famous city. Let us have no more papers on overcrowding, on ways for making money until New York City gets filled with physicians to such an extent that the members fare like the members of the profession in other cities.

The *Druggist*, of Chicago, reports the death of two children from the administration of morphia in place of quinia. The physician laid it to the apothecary, and the apothecary to the manufacturer's label. The tests for distinguishing these drugs from one another are so easy and so simple, that it would seem almost criminal for the retailing druggist not to apply them ere dispensing the drugs.

Dr. W. H. Daly, of Pittsburgh, places a doubtful estimate upon the value of the galvano-cautery in diseases of the naso-pharynx. He doubts if the instrument will become popular, as its expense is considerable and its behavior capricious. In most tumors the mineral caustics are preferable, as they are both cheaper and altogether less liable to be followed by serious local or constitutional symptoms.

The Boston *Commercial Bulletin* tells the following: "Dr. — is an eminent physician of Philadelphia, and, like some others of his class, is somewhat brusque and overbearing in his manner. One morning he found among his office patients a gentleman who, after occupying exactly five minutes of the great man's time, took a ten dollar note from his pocket and inquired the amount of his fee. "Fifty dollars," said the impatient man. The patient demurred a little, whereupon the physician rudely remarked: "Well, what do you expect to pay? Give me what you have got." And on receiving the ten

dollar note turned scornfully to his negro servant, and handing him the money remarked: "That is for you, Jim," but lost his temper still more when the patient coolly remarked: "I did not know before that you had a partner. Good morning, doctor."

On Feb. 10th, 1881, the Legislature of Colorado passed a bill to 'protect the public health and regulate the practice of medicine in the State of Colorado.' A Board of Medical Examiners is to be appointed by the Governor. This board is to be composed of six regular physicians, two homœopathic and one eclectic. This board must determine what colleges have a good standing, and to holders of diplomas from such issue certificates to practice medicine in Colorado. Those who do not have diplomas from such colleges must pass a satisfactory examination before the board, when they will receive the needful certificate. All persons who can prove that they have practiced medicine in Colorado for ten years shall receive a certificate permitting them to practice medicine without any diploma or examination. These certificates are filed with county clerk. Moral character is made a basis of either refusing to grant a certificate to practice, the lapses of character being criminal in their nature. Violations of the provisions of this law are to be punished by fines and imprisonment. The law is much like that of the State of Illinois—the best now existing in the States. We are indebted to Dr. W. R. DeLamater for a copy of the bill.

The Bellevue Hospital Medical College announces that with this year it ceases to require of graduates attendance upon three regular courses of lectures. As an exception was this year made in favor of this year's students, it is plain that it never did require attendance upon three terms of lectures. It says "That having regard to a proper prosperity and usefulness of the college, it returns to the requirements for graduation in force prior to the session of 1880-81."

At Harvard Medical School, it is said, that last year nearly one-third of the candidates for final examination were rejected. The *Medical Record* says that it is the belief that one of the largest medical schools of New York rejected about one-fiftieth of its candidates for final examination. Thus all but about a scant half dozen were rushed through the tests to the great financial com-

fort of the college and the shame and damage of the profession.

M. Dureau, one of the librarians of the Academy of Medicine (*Med. Press and Circular*), says that the present number of medical periodical publications for France and its colonies is 147; 95 of these are published in France, in Paris, and 52 in the departments. The German Confederation publishes 133 journals; Great Britain, 69; Austria, 54; Italy, 51; Belgium, 28; Spain, 26; Russia, 26; Holland, 16; Switzerland, 10; Sweden and Norway 9; Denmark, 5; Portugal, 4; Danish Principalities, 4; Turkey, 5; Greece, 1. Total for all Europe being 583. In America there are 183 journals; in Asia, 15; in Oceanica, 4. The total for the various continents being 785. The number of journals created since 1879 exceeds 2,500.

Prof. Meyer, of Berne, claims to have discovered that chlorine is not an element, as has been supposed, but an oxide of a metal to which he gives the name of murium. His method of proving this is to subject chlorine to a temperature of 700 degrees C. This separates the oxygen from the element; the oxygen is collected by passing the mixture through a bath of mercury, and its nature confirmed by the usual tests. The metal murium formed an amalgum with the mercury. Not enough of it has been collected to permit any adequate examination of its properties.

From the annual report of the New York State Board of Charities, we learn, that "Seventy-three institutions, of which statistics are given, contained during the two years ending September 30, 1880, a constant population of about 22,000, and received from the public funds more than \$4,000,000 during the same period, besides about \$2,000,000 from private sources. In conclusion, the committee say: "The magnitude of the interest represented by the charities of New York city must command attention. The great good they accomplish, the efficiency and devotion of those engaged in this administration are admitted, and it is not proposed to cripple these efforts or to discourage their zeal. It is believed that a combination of private effort with public aid is the true principle upon which to furnish the relief these institutions should afford. It is, however, in the direct interests of the meritorious institutions themselves, as well as of

economy to the tax-payers, that the system should be revised, with a view to the prevention of abuses to which it is now subject. Parents able to maintain their children should not be permitted to make them a public charge, and with this view the method of commitments must be amended. The system of public relief should not be such as to induce selfish and unscrupulous persons to embark in charity as a business, and with this end in view some restraint must be placed upon the organization of societies claiming participation in the public relief funds. The public contributions towards these institutions should be within a limit, to encourage private charity, to restrain extravagance, to promote economy, and to secure the entire application of the fund to the ostensible object."

Exhaustive experiments have proved that not more than five (5) per cent. of chloroform or ether in the air can be breathed without extreme danger. An atmosphere of eight (8) per cent. of chloroform is fatal, while two (2) per cent. can be breathed a long time without inducing anæsthesia. The great danger in administering anæsthetics lies in allowing the patient to breathe an atmosphere too highly charged with the vapor of the drug used.

GRADUATES OF AMERICAN MEDICAL COLLEGES, 1881:

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|--|-----|
| Louisville Medical College..... | 54 |
| Hospital College of Medicine, Louisville..... | 25 |
| Michigan College of Medicine. | 28 |
| Medical Department, University Louisville.... | 100 |
| Medical College of Fort Wayne..... | 22 |
| Miami Medical College..... | 34 |
| Cincinnati College Medical Surgery..... | 30 |
| Ohio Medical College..... | 103 |
| Medical Dept., Univ. Nashville and Vanderbilt. | 168 |
| Medical Department, University Buffalo..... | 48 |
| Woman's Medical College, of Chicago..... | 17 |
| Rush Medical College..... | 172 |
| Medical Department, University Maryland..... | 73 |
| College Physicians and Surgeons, Baltimore... | 154 |
| Medical Department, University of New York.. | 199 |
| Jefferson Medical College..... | 205 |
| Little Rock Medical College | 10 |
| Bellevue Hospital Medical College..... | 118 |
| Medical Department, University Wooster..... | 41 |
| Columbus Medical College..... | 63 |
| Cleveland Medical College..... | 51 |
| Starling Medical College..... | 36 |

On March 15th, the charter of the Philadelphia University of Medicine and Surgery was annulled.

In the celebrated Col. Dwight case, the

New York Court of Appeals has decided that the insurance companies must pay the insurance upon his life. The companies claimed that he took his own life with the design of defrauding them.

It is stated the loss by fire at the State Hospital for the insane at Danville, Pa., amounts to about four hundred and fifty thousand dollars.

A pair of Italian twins are being exhibited at Vienna. They are boys, are grown together from the sixth rib downwards, have but one abdomen and two feet. The upper part of each body is completely developed in each. Their brain powers are normal. Each thinks, speaks, sleeps, eats and drinks independently of the other. They are three years old and in excellent health.

A correspondent of the *Med. and Surg. Reporter* suggests that one cause for Bellevue's failure was due to the fact that it refused longer to teach the graduates of medicine without pay.

The Philadelphia Board of Health and the County Medical Society have by special resolutions endeavored to awaken the people of that city to a proper sense of the dangers of small-pox, and the protective influence of vaccination. The epidemic still prevails, although its course is a quiet one and its prevalence insufficient to excite popular alarm. The number of deaths reported weekly is the same as formerly.

A new District Medical Society has been formed at Mansfield, O. At a late meeting Dr. J. P. Cowan was chosen president, and Dr. A. H. Reed, secretary. Papers were read by F. C. Larimore on hypodermic medication, by Dr. J. Campbell on points in practice, by Dr. X. C. Scott on the selection and preparation of students for medical colleges. Reports on various subjects were made and pathological and clinical subjects exhibited. Altogether the meeting was a success, and we hope that the new society will do much to advance professional interests.

It is said that corns can be successfully cured by soaking the feet for several hours a day in water as hot as can be borne.

Dr. S. Turner, U. S. A., says (*Louisville Medical News*): "As a matter of fact, people select their physicians as they do their sweethearts, by some law of affinity, which laughs at charges or qualifications. True, the idea

of qualification is uppermost in their minds, but it has no more solid foundation than the pleasing fancies that paint each one's sweetheart as superior to all others." * * * * "Not every experienced and intelligent physician has the courage to reveal the truth to those about him, because, in the present state of popular ignorance, modest truth is fatal to its disseminator in the presence of the pretensions of quacks and charlatans who thrive upon popular ignorance. It cannot be denied in fact that every practitioner who succeeds derives a certain profit from the ignorance and superstition of the masses, and the necessity of that profit seals his lips against the utterance of truths, which, if generally known, would be fatal to quacks and charlatans without detracting from the real office of the true physician."

The following is from the correspondent of the Boston *Medical Journal*. It has relation to the proposed offshoot from a dental college. The principle will apply to medical schools as well:

THE MANAYUNK ODONTALGIACAL COLLEGE AND HOSPITAL OF UMBILICAL SURGERY.—*Spring Announcement.*—In order to increase the facilities for obtaining diplomas, the Faculty of this College assumes to matriculate students by mail, telegraph or telephone.

Mail.—Arrangements have been perfected through which the ridiculous formality of attendance upon the courses of instruction may be entirely dispensed with. The Faculty assumes to direct the reading of the matriculate from time of birth. Names may be entered by mail.

Telegraph.—Telegraphic communications will be established with the home of each matriculate in any part of the world. Attendance upon lectures may be conducted by telegraph. Highly interesting, important, amusing, and diversified clinical lectures on umbilical surgery and allied anal diseases will be furnished by telegraph to all parts of the world. The anatomico-physiologico-histologico-pathological expressions of each disease will be lucidly formulated, and the harmonistic co-relation completely established in the umbilical mansion, which is thus constructed, and which will give safe refuge to the practitioner.

Phonograph.—Theses may be deposited and recorded in the phonograph.

Telephone.—Final examinations will begin

at the beginning of each session and will be conducted by telephone. The very worthy and highly honorable degree of D. U. S. and D. P. will be conferred by telephone. The candidate is expected to bow to the honorable President of the honorable Board of Trustees and honorable Faculty as he approaches the diaphragm of the telephone and receives the degree. B. Low, D. U. S. & D. P., Dean.

The full force of this can be appreciated only by the initiated.—Ed.

At a meeting of the New York Academy of Medicine, held January 20, 1881, the following resolution was adopted: "*Resolved*, That a committee be appointed by the President to investigate the extent to which leprosy prevails in the United States." The President appointed as such committee Dr. H. G. Piffard, F. R. Sturgis and G. H. Fox. The committee are desirous of ascertaining the actual number of lepers in this country at the present time, and to that end respectfully request any physician who may know of the existence of a case in his neighborhood to communicate the fact to the chairman of the committee, at No. 10 W. Thirty-fifth street, New York.

AMERICAN MEDICAL ASSOCIATION.—By circular from W. B. Atkinson, Permanent Secretary, we learn that the thirty-second annual session will be held in Richmond, Va., on Tuesday, Wednesday, Thursday and Friday, May 3, 4, 5, 6, 1881, commencing on Tuesday at 11 A. M.

"The delegates shall receive their appointment from permanently organized State medical societies and such county and district medical societies as are recognized by representation in their respective State societies, and from the medical department of the army and navy and the Marine Hospital Service of the United States."

"Each State, county and district medical society entitled to representation shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number: *Provided*, however, that the number of delegates for any particular State, territory, county, city or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the code of ethics of the Association."

Secretaries of medical societies as above designated are earnestly requested to forward at once lists of their delegates to the Secretary, 1400 Pine street, Philadelphia.

Sections.—"The chairmen of the several Sections shall prepare and read in the general sessions of the Association, papers on the advances and discoveries of the past year in the branches of science included in their respective Sections. * * *"—By Laws, Art. II., Sec. 4.

Practice of Medicine, *Materia Medica* and Physiology: Dr. Wm. Pepper, 1811 Spruce street, Philadelphia, Pa., Chairman; Dr. T. A. Ashby, Baltimore, Md., Secretary.

Obstetrics and Diseases of Women and Children: Dr. Jas. R. Chadwick, cor. Marlborough and Clarendon streets, Boston, Mass., Chairman; Dr. Jos. Taber Johnson, Washington, D. C., Secretary.

Surgery and Anatomy: Dr. Hunter McGuire, Richmond, Va., Chairman; Dr. Duncan Eve, Nashville, Tenn., Secretary.

State Medicine: Dr. Jas. T. Reeve, Appleton, Wis., Chairman; Dr. R. G. Jennings, Little Rock, Ark., Secretary.

Ophthalmology, Otology and Laryngology: Dr. Dudley S. Reynolds, Louisville, Ky., Chairman; Dr. Swan M. Burnett, Washington, D. C., Secretary.

Diseases of Children: Dr. A. Jacobi, 101 W. Thirty-fourth street, New York, Chairman; Dr. T. M. Rotch, 77 Marlborough street, Boston, Mass., Secretary.

A member desiring to read a paper before any Section should forward the paper, or its title and length (not to exceed twenty minutes in reading), to the chairman of the Committee of Arrangements at least one month before the meeting.—By-Laws.

Committee of Arrangements.—Dr. F. D. Cuninghame, Richmond, Va., Chairman.

Amendment to the By-Laws offered by Dr. J. M. Keller, Ark.: "In the election of officers and the appointment of committees by this Association and its President, they shall be confined to members and delegates present at the meeting, except in the committees of arrangements, climatology and credentials."

Editor's Book Table.

The Books Noticed in these Pages are for Sale by THORNDIKE NOURSE, Detroit, Mich.

Gross on John Hunter and His Pupils.*

To an address before the Philadelphia Academy of Medicine we are indebted for

*JOHN HUNTER AND HIS PUPILS, by S. D. Gross, M. D., LL. D., D. C. L.; Oxon, LL. D., Cantab. Philadelphia: Presley Blakiston, 1881; pp. 106. Price, \$1.50.

the preparation of this biography. Few are as capable of entering into the real life of John Hunter as Dr. Gross. Few are so fully acquainted with Hunter's pupils and possess the means of comprehending the scope of Hunter's work so well as our author. He says, "With the exception of Hippocrates, the father of medicine, John Hunter is the grandest figure in the history of our profession. I make no exception in favor of Ambrose Pare, the father of French surgery and the inventor of ligature for the arrest of hæmorrhage, a contrivance which has been instrumental in saving so many lives; of Albert von Haller, the father of scientific physiology, or even Xavier Bichat, the founder of general anatomy and one of the most remarkable men that ever lived. Shall I make an exception in favor of William Harvey? No; I will not exclude from this list even the immortal discoverer of the circulation of the blood. Great as these men were, and vast as were the blessings which they have conferred upon the race, it is no disparagement to them to say that John Hunter was in many respects their superior; not in learning, for herein Haller had greatly the advantage; not in suffering which he has been instrumental in relieving by his surgical writings, for in this respect Ambrose Pare was fully his equal; not even in inventive genius, but here it will be found that Bichat, who created a new science before he was thirty years old, was not a whit his inferior. While Hunter had many traits of character in common with these and other great men, he possessed some features that were peculiarly his own. He was not only a great surgeon, a wise physician, and a great anatomist and physiologist, human and comparative, but, above all he was a philosopher, whose mental grasp embraced the whole range of nature's works, from the most humble structure to the most complex and lofty. He was emphatically the Newton of the medical profession, and what Pope said of the great philosopher, may by paraphrase be said with equal force and truth of Hunter."

"Nature and Nature's laws lay hid in night,
God said, 'let Hunter be, and all was light.'"

Hunter is peerless in the history of British surgery; and after the lapse of nearly a century the profession turns to his memory with increased reverence for his transcendent genius, his matchless ability, and his un-

equalled services. To say that he was simply the founder of scientific surgery would fall far short of his great deserts; to do him full justice we must add that he was the father also of scientific zoology and of comparative physiology. Dr. Gross discusses the character of Hunter as an observer, an investigator, a teacher, an author, and a man of genius. To do this he presents a bird's eye view of the history of surgery at the time he appeared in active life, tells us how he came to study medicine, tells us about his teachers and contemporaries, and portrays the influence of his discoveries on his age and future generations. As to the results attained by Hunter, Dr. Gross says: "The lesson of the life of such a man, in every respect so grand and colossal, so powerful and majestic in intellect, and so indissolubly associated with the scientific history of his age and country, is full of instruction, not only to the members of our profession, but to men in every avenue and pursuit of life. His example of industry, and of steady, persistent efforts in the cause of human progress reflects the highest credit upon his character, and is worthy of the imitation of every student ambitious of distinction and usefulness. Nowhere, either in ancient or modern times, can there be found a nobler pattern for the formation of a truly scientific career. Commencing life as an erratic, hesitating youth, undecided what to do, or whither to turn, without any promise or definite aim, a source of constant annoyance to friends, he became one of the most illustrious men of all Europe, leaving behind him imperishable monuments of patient research, of vast genius, and of wonderful philosophical acumen, destined to grow brighter and more stately as the ages roll on, and as men become more and more appreciative of man's work and of man's intellectual powers. "Although Hunter is dead, the spirit which animated him will live in all future ages to encourage and to stimulate the student of surgery, of science, and of human progress. His example affords an illustrious example of a man of great intellectual powers triumphing over early defective training, and marching onward, step by step, despite vast obstacles, to the highest pinnacle of human greatness." "Hunter, awakened from his early slumbers, saw the darkness which everywhere existed, and determined to dedicate his life to its removal. Guided by the Baconian philosophy, he perceived at

a glance that pathological processes could be interpreted only by a comprehensive knowledge of anatomy and physiology, not merely of man but of the lower animals, and even plants. In a word, he appealed to life in all its forms, from the most humble to the most exalted, for illustrations of the various processes carried on in the system in health and disease. No such work, no such generalization, upon so great or scientific a scale had ever been attempted. The outgrowth of these studies extending over a period of forty years, was the creation of a temple whose corner-stone neither time nor circumstances can move or shake." While the sketches of Hunter's contemporaries are much briefer, they serve to round out Hunter's life and to show its breadth and depth. Hunter's defects of education, of good breeding, and lack of self control, are fairly stated as serious blots upon a noble character.

We wish it were possible for every physician and every medical student to read this book. If comprehended it would exert a healthy influence upon their future careers, and the profession in general would have a truer band of workers.

The book is elegantly printed and has as a frontispiece a phototype from Sharp's steel engraving of Sir Joshua Reynolds's celebrated painting of Hunter, of which Lavator remarked, "This is the portrait of a man who thinks."

Ninth Volume of Ziemssen's *Cyclopædia of the Practice of Medicine*.*

This long expected volume has at last appeared, thus completing the seventeen volumes. A volume on the diseases of the skin will appear as a separate volume. A copy of it will be presented to every subscriber to Ziemssen's *Cyclopædia* who has completed his set by that time.

The volume before us treats of diseases of the liver and portal vein, with a chapter relating to interstitial pneumonia. The discussion of physical diagnosis of hepatic diseases covers about three hundred pages. It was prepared by Prof. Thierfelder, of Rostock. Prof. von Schuppel, of Tuebingen, discusses "Pathological Anatomy of Cancer

*CYCLOPÆDIA OF THE PRACTICE OF MEDICINE. Edited by Dr. H. von Ziemssen. Vol. ix. Diseases of the Liver and Portal Vein, with a Chapter relating to Interstitial Pneumonia. New York: Wm. Wood & Co. 1890. Cloth; pages, 928. Sold by Subscription. Price, \$5.00 per volume.

of the Liver," "Amyloid Degeneration of the Liver," "Fatty Liver," "Pigment Liver," "Diseases of the Biliary Passages and Portal Vein." Prof. Leichtenstern, of Tuebingen, discusses "Clinical Aspects of Cancer of the Liver." Prof. Heller, of Kiel, discusses "The Parasites of the Liver." Prof. Juergensen, of Tuebingen, "Interstitial Pneumonia." The anatomico-physiological introduction was prepared by Prof. Ponfick, of Rostock. In view of the present interest on this subject, the article on "Suppurative Hepatitis" will be read with special interest. The results following operation for the exit of pus vary greatly. J. Clark had eight recoveries among thirteen cases. Murray obtained a favorable result in six out of seventeen cases. Warring in eighty-one operations found fifteen recoveries. DeCastro, from the statistics of sixty-one cases, found that thirty-four recovered. Of the statistics of thirty-four operations collected by the writer, twenty-two terminated in recovery.

Concerning the disputed points respecting the pathological anatomy of the liver in its amyloid degeneration, Schueppel says that "he believes that infiltration of the liver cells with amyloid matter never takes place, but that the only parts affected thus are the blood vessels; that aside from the minute branches of the hepatic artery, the entire capillary system of the lobule is affected, the small veins being also involved towards the last and to a lesser degree." As the latest contribution to a very intricate and difficult study, this volume will be cordially welcomed by all students of hepatic disorders.

We congratulate the publishers on the successful completion of their great undertaking—the greatest by far of any medical publication in the English language. The liberality of the firm appears evident on a comparison of what was first advertised and what was actually given. Thus the subscribers have received an equivalent of over seven volumes, more than they expected, without any increase of price.

Fournier on the Relations of Syphilis and Marriage.*

Few questions are more perplexing to the medical practitioner than those connected with the relations of the marriage state and

syphilis. We know of no other work in the English language devoted to the exclusive study of these relations. Even the standard treatises on venereal only incidentally allude to it. Yet its importance is apparent, in its pathological relations, and because of the family and society interests involved. In considering the social aspects of the question the author specially emphasizes the moral obligation imposed upon the physician as regards public prophylaxis, and formulates a complete system of rules to guide his conduct in dealing with the various complex and difficult social problems which may arise. The acknowledged reputation of the author in this branch renders his discussion all the more important and is a guarantee of its excellence and scientific value.

The entire work is divided into two parts. Part first treats of preliminary questions, of the dangers due to syphilis in marriage, of syphilis by conception, of parental heredity, of mixed heredity, of maternal heredity, of the personal dangers of the husband, of the conditions of admissibility to marriage, of prolonged period of immunity and non-menacing character of the diathesis, of sufficient specific treatment, and of the use of sulphur waters.

Part second treats of the relations of syphilis after marriage, when the husband is syphilitic and the wife healthy, when the husband is syphilitic and the wife healthy but enceinte, when the husband is syphilitic and the wife recently contaminated, when the husband is syphilitic and the wife syphilitic and enceinte, and finally of the dangers to society, social prophylaxis and many illustrative cases.

In its conception and execution this book is worthy of the most careful study and frequent reference by all in any way responsible for the action of men or women in their sexual relations.

What are the conditions that will admit a syphilitic subject to marry in safety, to his wife, his children and himself? (1) The absence of existing specific accidents. (2) The advanced age of the diathesis. (3) A certain period of absolute immunity consecutive to the last specific manifestations. (4) The non-threatening character of the disease. (5) Sufficient specific treatment.

If the patient satisfies all of these conditions he may be considered fit to become a

***SYPHILIS AND MARRIAGE.** By Alfred Fournier. Translated by P. A. Morrow, M. D. New York: D. Appleton & Co. 1881. Cloth, pp. 251 Price, \$2.00.

husband and a father. Under all other circumstances he should be dissuaded from marriage, forbidden, if possible.

Yet in any given case the physician's advice will be based on a simple calculation of probabilities, upon an appreciation, essentially difficult and delicate, of vague, ill-defined elements, such as, on the one hand, the provisional diagnosis of a diathesis, and on the other hand, the degree of corrective, preventative influence exerted upon this diathesis by treatment. If the physician is in doubt respecting any element he should reserve his decision and tell his patient that he must wait. Of those who marry against the advice of a careful physician a few individuals may have no occasion to repent of their rashness, but careful observations of a large number of cases show that an enormous majority have experienced the most lamentable consequences. On the other hand, of those who have followed the counsels of the wise adviser the results are of a directly opposite nature. As an almost absolute rule, the patients were not dangerous subsequently either to their wives, to their children or to themselves. Marriages contracted under these conditions have almost always produced happy results. Thus, although the evidence be of a probable nature, the judgment of an intelligent and prudent physician affords in this matter substantial guarantees. Thus the physician consulted on the question of marriage of a syphilitic patient, renders a most important and valuable service to the interests of his patient and the interests of society.

Every page is full of the most practical and plain advice, couched in vigorous, emphatic language.

Gubler's Principles and Methods of Therapeutics.*

This work does not take up the principles and methods of therapeutics, as an accessory to *materia medica*, nor does it deal greatly with the physiological action of drugs. It has little to say on the treatment of individual diseases. It does aim to represent, from the latest acquisitions of science: 1st, the methods which can be most effectively em-

*THE PRINCIPLES and Methods of Therapeutics. By Adolphe Gubler, M. D., Professor of Therapeutics in the Faculty of Medicine, Paris, etc. Translated from the French. Philadelphia, Pa.: D. G. Brinton, 115 South Seventh st. 1881. Half Russia, pp. 441.

ployed in the administration of remedies; 2d, the principles or processes by which their remedial action is exerted on the human economy. It is a study of the actions of medicines in disease, and the technical artifices for their introduction into the organism, based on clinical, physiological and chemical observations. Of the two principal methods of seeking truth by those who study the science of man, he says: "While some, taking a side path leading to rapid results, seek through experimentation on animals to establish the fundamental laws of vital organization, in order to make applications of them to the human species; others interrogate man himself to obtain the information he alone is capable of giving, and attempt, by patient and laborious observation, to distinguish among the phenomena common to man with all living beings, those peculiarities of organization and function proper to him alone." "All contribute equally to the advancement of biological knowledge, each in the measure of his own personal capacity; and absolute pre-eminence cannot be attributed to either of the methods into which is divided the great and essentially modern scientific method." A careful study of this work shows us that it is the supplement of all other works on therapeutics, and the rival of none. It is full of the most suggestive facts and sound reasoning, in a field where fallacious reasoning and half truths are often put before the profession.

Kane on Opium, Morphine, Chloral and Hashisch Habits.*

As illustrating the increase of the prevalence of the morphia habit, in one of the large cities of the United States, during the last twenty-five years, Dr. Kane says that the population has increased 59 per cent. and the sale of opium has increased 900 per cent., and that of morphia 1,100 per cent. Certainly this is a fearful showing. The work before us is largely based upon facts obtained from upwards of a thousand correspondents. These are so condensed and blended with the author's observations and experience as to bring the important features of these habits fairly before the minds of all readers.

*DRUGS THAT ENSLAVE. The Opium, Morphine, Chloral and Hashisch Habits. By H. H. Kane, M. D. Philadelphia: Presley Blakiston. 1881. Cloth; pp. 284. Price, \$1.50.

Dr. Kane thinks that DeQuincy, in writing his "Confessions," left a large debit on the side of truth, and handed down to succeeding generations a mass of ingenious lies, more pleasantly the fiction vaporizing from a laudanum-soaked brain. He must needs seek some justification for his life of willful misery, for the blasted hopes, ambitious and prospects of what might have been a noble career, and he offered the dream life, the fuller development of benevolence and the many pleasures so fantastically portrayed, as a justification of his sin. He says that he knows of several patients who began the use of opium simply from the reading of this most pernicious book.

He finds the habit more frequent among females than males. Both males and females belong to the higher orders in point of intellect and culture. The majority of patients come from the middle classes, those people who are continually toiling in the almost ceaseless endeavor to keep up appearances. The symptoms of the habit and its effects are excellently portrayed. Respecting the sudden deaths attending the sub-cutaneous injection of morphia, Dr. Kane says: "It is a strange fact that all the cases where injection into the temporal or infra-orbital region is mentioned by correspondents and by some authors, have been attended by either intense narcotism or death." Respecting the precautions to be taken in the making of this injection he says: "I am firmly convinced that no physician should be held free from blame in case of accident where he has not had a ligature or tape loosely encircling the arm above the point of puncture. At the first intimation of danger this should be pulled tight and kept so for several hours, being loosened gradually, thus permitting but a gradual entrance of the drug into the general circulation. With this precaution it is seldom necessary to treat such alarming symptoms as are here recorded. The treatment of these symptoms is summed up in one word—stimulation.

As a result of a study of all the facts, the author concludes: The habitual use of narcotics is steadily on the increase, especially the subcutaneous use of morphine. These drugs are, in the majority of cases, taken to relieve pain, and not for the simple gratification of a morbid appetite. Physicians and druggists are especially to blame for this. Death and dangerous accidents and

the spread of the continued use of narcotics is due to a great extent to the druggists, who, in many cases, sell the drug without a physician's prescription, and without any reasonable excuse on the part of the patient, in direct violation of law. Charlatans, by their advertisements in all sorts of newspapers, especially the religious ones, are able to do infinite harm. As a whole, the book is a helpful one to such as desire to become familiar with this subject; honest, thoughtful and attractively written.

Duhring on Diseases of the Skin.*

The first edition of this work was received with almost universal approval. Its trustworthiness, its clear, concise descriptions, its entire accord with the then prevailing views on this subject, at once made it popular with both the profession and medical students. The edition before us bears on every page evidences of the most thorough and careful revision. Much new matter has been added, so that the book is larger by about one hundred pages. The latest important facts relating to the anatomy and physiology of the skin are fully given.

New articles are introduced upon the following subjects, viz.: Uridrosis, phosphorescent sweat, urticaria pigmentosa, dermatitis circumscripta herpetiformis, impetigo herpetiformis, pityriasis maculata et circinata, dermatitis exfoliativa, dermatitis medicamentosa, dermatitis gangrænosa, dermatitis papillaris capillitii, fungoid neoplasmata, tuberculosis cutis, podelcoma, ainhum, perforating ulcer of the foot, and myoma cutis.

Important additions have been made to the chapters on dysidrosis, pompholyx, *hæmatidrosis*, scleroderma, morphea, atrophia cutis, hypertrophy of the hair, atrophy of the hair, scrophuloderma, syphiloderma, and carcinoma.

Thus having been brought fully abreast the latest researches, it takes its old place as the best book for the medical student and general practitioner that exists in the English language for the comprehension and treatment of skin diseases. The elegant manner in which the publishers have issued it enhances the pleasure of reading and studying it.

*A PRACTICAL TREATISE ON DISEASES OF THE SKIN. By Louis A. Duhring, M. D. Second edition; Revised and enlarged. Philadelphia: J. B. Lippincott & Co. 1881. Cloth, pp. 644. Price, \$6.00.

Fifth Edition of DaCosta's Medical Diagnosis.*

For over fourteen years this work has been the standard text book on medical diagnosis in both Europe and America.

The present edition brings it fairly up to the present date in all respects. Its method, its style, as well as its material, commend it to all medical students and medical men. It is one of the books absolutely essential to every medical library. And we doubt not that this edition will find a place in all newly collected libraries. The publishers have issued it in their usual good taste.

*MEDICAL DIAGNOSIS, with special reference to practical medicine; a guide to the knowledge and discrimination of diseases. By J. M. DaCosta, M. D. Illustrated with engravings on wood. Fifth edition, revised. Philadelphia: J. B. Lippincott & Co. 1881. pp. 924. Cloth, price, \$6.00.

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Abstracts from Exchanges.

Prepared by Judson Bradley, M. D., Albert B. Lyons, M. D.
and E. A. Chapoton, M. D.

Practical Medicine.

DRINKING CABINET POLISH A CAUSE OF ILEUS.—The case of a middle aged man, an inebriate, who died in the Berlin City Hospital, of intestinal obstruction, is reported by Dr. Carl Friedlaender (*Int. Jour. of Med. and Surg.*, February 12, 1881—*Berlin. klin. Wochenschr.* No. 1, 1881). The post-mortem revealed several large concretions in the stomach and intestine, weighing 960 grm. in the aggregate. One large one, situated near the ileo-cæcal valve, was the cause of obstruction. The history of the man disclosed that he had been in the habit of drinking the alcoholic solutions of shellac furnished him in his work as a cabinet maker. The doctor ascertained that it is a frequent habit, at least in Berlin and Potsdam, among cabinet makers, and it is usually dealt out to them in small quantities in consequence. The concretions above mentioned were soluble in alcohol and precipitated by water, and manifested other characteristics in proof that they were shellac.

ILEUS CURED BY MASSAGE.—Four cases of ileus treated successfully by massage are reported by M. Busch (*Int. Jour. of Med. and Surg.*, January 29, 1881—*Wratsch*, No. 21, 1880—*Centralbl. f. Chirurgie*, No. 48, 1880). Three were cases of intussusception—the impaction of fæces from stenosis of the ileo-cæcal valve. They had all been

previously treated with opiates, enemata and cathartics. He directs that the manipulations should be in the direction of the tumor in stenosis, if it can be traced, but in other cases and in all cases of intussusception they should be from the extremities of the swelling toward each side. Thus, the fæces are pressed back and the invagination is reduced. Dr. Thomas Wilde, of Brooklyn, having seen the above, reports to the *Int. Jour.* for February 19, 1881, a case successfully treated by himself according to the directions given. When he was called, opiates, cathartics and injections had been used freely, without benefit. In three hours, the tumor (it was a case of obstruction) had been carried down several inches. The next day the scybala was passed, and the patient recovered.

MORPHIA ANTIDOTED BY ATROPIA.—Dr. D. A. Joy, of Michigan University, (*Physician and Surgeon*, Feb., 1881), reports a case apparently moribund from morphia poisoning (seven and one-half grains having been taken), which recovered by the hypodermic injection of atropia. When he reached the patient with a solution of atropia sulph., he found him black in the face and not breathing. He immediately commenced artificial respiration, and injected five doses, of one-thirtieth of a grain each, during the next one and one-half hours. The effect was marked at the third dose, and before the last dose artificial respiration was unnecessary.

LOCAL ANÆSTHESIA OF THE LARYNX.—On account of the helplessness and apathy produced by bromide of sodium used for this purpose, Rossbach (*Int. Jour. of Med. and Surg.*, Jan. 29, 1881; *Wiener Med. Presse*, 1880, No. 40; *Centralbl. f. Chir.*, No. 46, 1880) sought to act directly upon the superior laryngeal nerve, destroying the conducting power of the sensory fibres. This was accomplished in two ways, viz.: (1) By injection of .005 gr. of morphine on each side where the sensory branch pierces the hypothyroid membrane below the great cornua of the hyoid bone. (2) By the ether spray in two small streams upon the same points. After continuing the latter a minute or two, anæsthesia was complete.

MEDICINAL ERUPTIONS.—I. Edmondson Atkinson, M. D., (*Maryland Medical Journal*, November 15th, 1880, to February 15th, 1881, inclusive.) In this series of lec-

tures delivered before the class of the University of Maryland, in the autumn of 1880, Dr. Atkinson treats of the diseases of the skin caused by the administration of medicines. He says the healing art is based upon a knowledge that certain substances in organic and inorganic nature possess certain properties whereby they exert peculiar influences either upon the whole animal system or upon certain part or organs. These influences are pretty uniformly observed, and within certain limits, may with confidence be expected. In addition to such actions, however, which depend upon certain fixed relations between the animal economy and the substances ingested, there are in certain individuals peculiar conditions of receptivity, whereby there is exhibited an inexplicable intolerance of some agents, totally at variance with what is usually observed and what it is reasonable to expect. These idiosyncracies seem to depend upon no recognizable conditions and reveal themselves now in one way and now in another, and when once declared generally remain unchanged, producing their peculiar phenomena whenever their exciting causes are in operation. So also certain kinds of food,—that most persons may eat with impunity—not unfrequently cause to appear on certain individuals erythema, urticaria, pruritus, etc., associated, of course, with peculiarities of digestion, or occurring independently of those peculiarities. In a similar manner the indigestion of various substances used medicinally may be followed by peculiar manifestations on the part of various organs, which experience has not led us to expect; and of such peculiar manifestations the skin is not infrequently the site. These cutaneous eruptions may be the result of a purely reflex irritation, or they may be due to the direct action of the drug on the part, either in consequence of some selective action or through an irritant influence exerted in its secretion.

A correct knowledge of the various eruptions evoked by the administration of certain drugs in certain individuals will often enable one to avoid errors and to save one's patients from persistent sources of annoyance, for these eruptions may not only simulate ordinary trivial eruptions but those of the graver sorts as measles, scarlatina or even small-pox.

Already as early as 1871, it was observed by Crichton Brown and others, that the administration of chloral hydrate was occasionally complicated with cutaneous eruptions. Since then important additions to our knowledge have been made. The most commonly observed chloral eruption manifests itself as an erythema, possessing peculiar characters and usually occurring under certain notable conditions. This chloral erythema or chloral scarlatinaform rash, as it has been called, has been observed to follow a very regular evolution, beginning in all cases in a nearly identical manner. If a patient takes chloral and the rash begins to appear it will almost invariably begin on the face and neck, in suddenly appearing erythematous patches, which usually coalesce; they spread to the shoulders and trunk; to the large joints and back of the hands, and may invade the entire surface of the body, exhibiting greater intensity upon the exterior surfaces. These areas of eruption are very slightly elevated and are of a dark crimson color. This is especially true when the face is involved, where the chin only possesses any immunity. The boundaries of the eruption are quite clearly defined. When the rash is universal it assumes a scarlatinaform character that is very deceptive. Sometimes there will be conjunctival hyperæmia that makes one think that an attack of measles is impending. There are usually no subjective symptoms beyond a mild sensation of heat. After several hours have passed the rash begins to fade and in the course of a day or two becomes very pale and disappears, with occasionally slight desquamation.

Sometimes a person under the influence of chloral will determine the rash by taking a single meal or a glass of beer, and this may happen where previously the person has taken chloral without inconvenience. Hence it may happen that the rash may undergo daily exacerbations, occasioned by meals, etc. Associated with these cutaneous manifestations, are very remarkable disturbances of the pulmonary and circulatory systems. Preceding or accompanying the rash the patient usually experiences flushes of heat and a general feeling of depression. Almost at the same time great difficulty of breathing supervenes and the pulse runs up to 120 or 130 per minute, with the heart beat very forcible. But there are at the same time no

abnormal pulmonary signs, neither is there any febrile reaction. But occasionally the rash *may* be accompanied with fever and a slight sore throat. Then the resemblance to scarlet fever is very marked, but the strawberry tongue of scarlet fever is absent.

Crichton Brown has also reported cases of purpuric eruption associated with alarming symptoms and in one instance death ensued, preceded by somnolence, weakness and congestion of the lungs—the fatal issue following several fainting fits.

Cases of papular eruption as also of erythema running into discharging eczema, followed by copious desquamation and shedding of the hair and nails, and finally by abscesses resembling blood poisoning, have been reported. Urticaria also has been noticed to follow ingestion of chloral.

About the only difference between chloral erythema and other medicinal erythematous rashes is the dyspnoea and violent action of the heart, which are not usually present in other forms of erythema. The erythema caused by chloral seems to be due to the vaso-motor paralysis and the tumultuous action of the heart is probably due to the reduced inhibitory action of the pneumo-gastrics, with possibly also the partial paralysis of the great sympathetic.

Treatment in the slighter cases of chloral eruption consists in withdrawing the cause. In the graver cases both prognosis and treatment will depend upon the degree of the poisonous action of the drug.

The next group of medicinal eruptions noticed in these lectures are the *Iodic*. They may be classed as (1) Erythematous. (2) Papular. (3) Vesicular. (4) Pustular. (5) Bullous. (6) Purpuric.

In addition to these varieties there may occasionally be observed urticaria, erythema nodosum, furuncles and ulcerations.

Iodic erythema has attracted but little attention, but is of more importance when it occurs on the mucous surfaces, as then it produces considerable discomfort. This rash disappears soon after abandonment of the medicine. Iodic papular eruptions may be observed associated with erythema or vesicles, pustules or other forms of eruption. For the most part they are only the transition stages of more advanced lesions. In fact iodic rashes commonly begin with papules and quickly become pustular, strongly

resembling acne. In such cases the eruption is bright red without itching. It usually appears where the sebaceous glands are most plentiful. Different observers have found these papular eruptions different in different people, but the generic character seems to be the same.

The pustular iodide eruptions may develop from the papular or may become pustular so suddenly that the papules may seem to have been ignored.

Furuncles may occur, forming around or in a follicle.

Eczema rubium has been observed. Vesicles are usually associated with bullæ or more often they occur as the precursor of the larger lesion. Bullæ may attain a large size, as large even as the egg of a pigeon, but they usually occur about as large as a pea. If left undisturbed the bullæ tend to become flaccid, so that they are finally absorbed and only a thin crust remains where the bleb was situated. As to the origin of the blebs most writers agree in considering it a superficial dermatitis, resulting in vesicle probably produced by the action of the drug on the living membrane of the blood-vessels.

Iodic purpuric eruptions have been observed by a number of writers. While they have been mostly of a trivial character, fatal results have been encountered. Iodic purpura occurs usually in cachectic and broken down subjects. In the greater number of cases the eruption occurs upon the legs in a petechial form. It may also occur on the trunk and in the forearms.

The predisposing cause of iodic purpura seems to be an idiosyncrasy, some peculiar intolerance of the drug iodine.

As to treatment of iodic eruptions, no specific treatment is known. Arsenic seems to be the best drug used to establish a tolerance of the effects of iodine. If we find it necessary to treat iodic eruptions the treatment should be based on general principles.

The cutaneous eruptions that follow the use of the medicinal preparations of bromine are either papular, vesicular or pustular inflammations of the cutaneous glands, with sometimes the development of furuncles in the glands and the subsequent occurrence of ulcerations.

There may also occur erythema papules

and urticarial wheals, occurring independently of the cutaneous glands.

As with iodic eruptions, those of bromine do not require any special treatment, but remove the cause and the effect soon disappears. When it becomes necessary to continue the use of the bromides, the use of arsenic may establish a prophylaxis against the bromic eruptions. Two or three drops of Fowler's solution given with each dose of the bromide seems to be sufficient to prevent the eruption.

Arsenic is another drug used medicinally, that under certain conditions produces not only irritation, but may produce cutaneous eruptions. The first eruption due to arsenic that has ever been described, is a brown discoloration of the skin, which is said to augur well, as it denotes decline of the disease for which it is given. Papules may appear in conjunction with the aforesaid brown discoloration.

An erythematous redness accompanied by œdema, may sometimes be observed on the hands and feet of persons who have been brought fully under the influence of arsenic in small and repeated doses. Erythema of a more general character has been reported; and urticaria and herpes zoster, as well as petechial, vesicular and pustular eruptions, erysipelas and gangrene, have been attributed to the ingestion of arsenical preparations.

The only cutaneous eruption that follows the use of mercurial preparations is a vesicular eruption not distinguishable from simple eczema, and it may even become as intense as eczema.

The last of the mineral drugs noticed as causing cutaneous eruptions is salicylate of soda, which, in exceptional cases, has caused erythema, urticaria, vesicles and pustules. Of the medicines of vegetable origin which cause eruptions of the cutis, the first noticed is copaiba, which, in certain cases, gives rise to erythema, which sometimes becomes erythema papulatum or may even simulate urticaria. Sometimes there are purpuric patches which come from the intensity of the papules of erythema.

Belladonna causes erythema, simulating scarlatina. Similar symptoms to those caused by belladonna have likewise been noticed to follow the administration of stramonium, hy-

oscyamus and other drugs of a similar nature.

Tar and carbolic acid occasionally produce an eruption like acne. Opium as a medicine is sometimes provocative of an exanthem, either papular or vesicular. Sometimes an erythema is observed. Of late it has become well known that quinine sulphate will in a few cases produce a rash which is like a combination of erythema and urticaria. Or the erythematous rash may clearly resemble scarlet fever and require several days to disappear, when there will follow a desquamation nearly as disagreeable as that which follows scarlatina. Purpura has been noticed and bullous eruptions, commencing gangrene and erysipelas of the scrotum, all to follow the ingestion of quinine.

The treatment in all these cases is to suspend the medicines and treat symptoms on general principles.

The drugs and medicines that produce skin eruptions by local contact are very numerous, but they do not much concern this paper.

RESORCIN—Prepared from benzol, on account of its relationship to phenol and pyrogallie acid, led to experiments testing its disinfecting properties in diseases of the stomach (*J. Andeer, Zeitschr. f. klin. Med.*, bd. ii.; *Int. Jour. of Med. and Surg.*, March 10, 1881). It is found superior to phenol and salicylic acid in the treatment of gastric diseases in that it does not affect the system, being fixed in the mucous membrane by so-called hydrations. It coagulates albumen quickly, and is therefore of great service in capillary hemorrhages. It leaves no cicatrix, the epithelium reforming after its use. In the same number of the *Journal* is a translation of Totenhofer's report from the Wilhelm-Augusta Hospital for children, claiming that resorcin allays the vomiting and does not produce symptoms of collapse, is palatable, and quickly re-establishes the resorptive powers of the stomach and intestines in cholera infantum. He says that a dose of O, 1-Q, 3, given in chamomile-flower tea, has never produced poisonous results. Mortality from this disease is reduced to 15.4, and recovery usually follows within six days by the use of resorcin.

A LIFE SAVED BY PROMPT VACCINATION.—Six years ago Dr. Turner Anderson (*Louisville Medical News*, March 19, 1881) delivered

a child while the face and neck of the mother were covered by the eruption of small-pox. He vaccinated it immediately in both arms. The result was most favorable and the child is now healthy and vigorous. He was fed on cow's milk while his mother was suffering from the disease.

MATERNAL IMPRESSIONS ON HER OFF-SPRING.—Dr. T. J. Draper (*Louisville Med. News*, March 18, 1881) reports the case of a mother who attended a child sick with scrofulous inflammation and suppuration of the lymphatics, in the fifth month of her pregnancy. Her sympathy was greatly aroused and she dwelt much on his sufferings. Her own child, though apparently healthy at birth, soon manifested the same symptoms as the scrofulous child and bore a marked resemblance to it in other respects, so much so that it was remarked by the neighbors. The disease pursued the same course until the child died of uræmia. Neither of its parents nor their families ever manifested a scrofulous tendency.

WINTER CHOLERA.—Dr. J. A. C. Hollister (*National Board of Health Bulletin*), gives the following as the results of a study of over one hundred cases of this disease, as observed in private practice:

"The two features that have attracted attention in this affection are the severity of the vomiting and the copious discharges from the bowels.

"The matters rejected from the stomach have usually given slight acid reaction, at the first consisting mainly of aliment and drinks, readily rejected, and then mucous secretion from the stomach sometimes tinged with bile, sometimes not. The alvine evacuations have been markedly of a serous character; a fact specially noted. In some cases the typical appearance of bilious diarrhœa, giving the stool a bright yellow color, in others an absence of bile. The discharges varying from a bright creamy color to those characteristic of cholera, only that in them I have not noticed coagulated albumen.

"The urine is usually rather scanty and high colored until the diarrhœa is controlled.

"The nervous system, aside from the sense of prostration, does not seem to manifest disturbance.

"The mucous secretion is partially arrested in the respiratory passages, and especially in the mouth and fauces.

"The capillary circulation of the skin varies, but there is no uniform marked disturbance of the circulation.

"The subjective symptoms are, in the order of their severity:

"1. Inordinate thirst, with dryness of tongue and fauces.

"2. More or less frequently recurring nausea, with vomiting.

"3. Tenderness over umbilical region covering region of small intestines.

"4. Quite frequently a sense of fullness and pain in the region of the liver, with sometimes excessive secretion, and at others seeming congestion, with arrest of biliary secretion.

"5. Fugitive pains in various parts of the body."

In the practice of some physicians the choleric discharges were not observed, all the stools being characterized simply by the absence of bile. The implication of the liver function was a very common feature, and jaundice was produced in some of the severer cases.

The onset of the disease was usually sudden; patients in some extreme cases on rising in the morning felt only a slight dryness in the mouth, but found themselves unable to keep even a drink of water on the stomach. Generally, however, the onset, though sudden, was not so abrupt as this.

The duration of the disease was very variable—many even of the severer cases recovered within a few days, sometimes within a few hours under prompt treatment; others have lasted many weeks.

As after-effects, there have been observed, besides the jaundice already mentioned, sub acute enteritis, dysentery, and ulceration of the rectum. In most cases a tendency to relapse was observed, and changes of weather were very influential in bringing this about, as well as influencing the course of the disease during its existence. Imprudence and exposure generally were thought to produce it or to aggravate it.

During the earlier weeks of the epidemic the disease appeared to be mostly confined to adults, but later children were attacked to some extent, the trouble in them often taking the form of cholera infantum. Although it was said in the beginning that the epidemic made no marked figure in the mortality reports, corresponding with its preva-

lence, yet there have been one or two deaths reported from it, and it has been mentioned in connection with other diseases in a number of death certificates. The number of deaths reported from cholera infantum has also been larger than usual at this season during the last few weeks. There is no doubt but that it has had its effect in increasing the mortality, though not very much can be attributed to it alone.

The nature and cause of the disease are not very manifest, according to observations in Chicago. Some physicians in large practice have had no cases except adults, and the majority males; others have found no reason to think that either age, sex, or occupation is a factor in its production. Previous conditions of health or debility also appear to make no figure in its causation; the majority of the patients were, it is probable, in fair or robust health when attacked.

Popular opinion was at first inclined to attribute it to the excessive cold of the winter, and many physicians were inclined to share the opinion. Bad sewerage and ventilation could not be generally credited with its production, as it occurred equally where nothing was wrong in these respects. It is probable, however, that it was aggravated in some instances by bad sanitary conditions. The fact that the disorder occurred simultaneously in many widely-separated localities over the country is against the idea of any local conditions producing it—such as the drinking water, which was constantly and carefully watched by Dr. DeWolf and the health officers without finding any marked impurity, notwithstanding the fact that the Fullerton avenue conduit was discharging from the north branch into the lake all winter. A number of physicians of extensive observation strongly suspected a malarial element in the disorder. In this connection I may state that a well-known physician from the interior of the State, Dr. Howard, of Champaign, has said that in his town he had seen a large number of cases of severe bowel complaint this winter in children, and very few in adults. In all, or nearly all, cases he found that the sufferers had been eating snow, and that the disease was apparently directly traceable to that. He also favored the idea of its malarial character, at least in part. The facts known are very suggestive, but it will require a much more

extensive inquiry at a later period to justify any positive deductions.

The treatment of the disorder, as might be expected, is extremely various, but nearly uniformly successful. The only general practices, and these were not universal, were the employment of the mineral rather than the vegetable astringents, the use of opium in some form, and of bismuth. Most practitioners, it is probable, used mercury also in the commencement of the treatment of a case, on the theory that it would act on the disordered hepatic functions; some confined the medication almost entirely to the bismuth and pepsin, with careful dietary, and nearly all attached much importance to this last measure in the treatment of this disorder. Many used quinine in pretty fair doses, and some considered that its use was the best prophylactic against a relapse. In the beginning of the epidemic, cholera mixtures, such as Hamlin's, were much used, but later other measures were more in favor. The success in a greater or less degree of nearly all methods of treatment, directed on general principles to the condition, indicates the comparative manageableness of the disorder. Warm weather it is said was accompanied usually with an abatement of the disease, and it has apparently much decreased, at least in adults, since the middle of February. If we are not to attribute it to the extraordinary cold weather of the past winter, perhaps we may credit its docility to treatment to the same antiseptic condition.

As the epidemic is not entirely over it is too early to draw conclusions or to sum up observations that are yet of necessity incomplete. The above notes are offered simply as a sort of preliminary report, to be followed, it is to be hoped, at some future time by the results of a more complete investigation.

NITRITE OF AMYL IN EPILEPSY.—Dr. Magliano (*Note di Clinica Medico—The Brain*) concludes an interesting paper, as follows: "(1) That the inhalation of nitrite of amyl methodically and persistently, and not with the view of cutting short impending attacks, causes a notable diminution of the violence and number of the epileptic seizures. This is proved by the three observations described, as well as several others in which the results were identical. The

method employed by us is different from what is habitually followed, which was to cause the amyl to be inhaled after the beginning of the attack or after the aura came on in order to avert the fits. Hammond has tried the drug in much the same manner as ourselves without being able to report any benefit; but we using larger doses have obtained favorable results from the use of amyl. Some other observers have also reaped benefit, among them is Crichton-Brown, who however did not use the drug in the same fashion. He succeeded in eight cases out of ten in cutting short the status epilepticus in which fits succeeded one another without intermission, the patients remaining unconscious during the intervals. (2) That the dose of the nitrite of amyl may be raised without inconvenience to forty drops—the inhalations being prolonged for forty minutes and repeated from four to six times a day. (3) That the cerebral temperature is gradually raised from .3 to .8 of a degree C. during inhalation of the nitrite, on the cessation of which it again descends to the usual grade. (4) That the inhalation of nitrite of amyl in most instances causes the appearance of sugar in the urine amounting to from 1 to 2½ grammes in the twenty-four hours.

Nervous Diseases.

BRAIN LESIONS AND FUNCTIONAL RESULTS.—Daniel Clark, M. D., Medical Superintendent Asylum for the Insane, Toronto, gives at some length (*Amer. Jour. Insanity*) the reasons why he does not accept the conclusions of Ferrier and his school, in regard to the localization of different functions of the brain, within certain comparatively limited and sharply defined areas of the cortex of that organ. On the other hand he urges that localization of functional power resides only in the basal ganglia, and that the masses of cerebral substance above them are only depositories of nervous energy. He summarizes the reasons for his position as follows:

I. The radical difference found in the circulation of the blood, both as to mode of distribution and quantity, leading to the reasonable inference of greater functional activity existing in the centre than in the circumference of the brain. The more life-action in a part, the more blood supply needed.

II. The want of uniformity in functional results when definite and like portions of the

cortical substance are stimulated, impaired or destroyed; hence, this can not be the centre of so-called motor centres.

III. It would be consonant with pathological and experimental facts to locate these motor and psychical centres in the base and center ganglia, yet in sympathetic relations, being influenced, but not absolutely controlled, by the cortical substance.

IV. The want of distinctive physiological features in the different convolutions.

The writer, perhaps, means here anatomical rather than physiological features. In support of his position he collates from the surgical records of the war and from medical journals a number of cases of traumatic lesions of different portions of the brain, with considerable loss of cortical cerebral substance from one or both of the hemispheres, unattended by any marked or permanent abnormality of function or mental disturbance. The twenty-sixth case, cited from the *London Lancet* of January, 1880, seems to him the most interesting, inasmuch as the parts injured by the passage of a pistol ball were undoubtedly the corresponding convolutions of both anterior frontal lobes, yet there was no evidence of any corresponding loss of function or impairment of intellect. It may be well to say here that this locality is one distinctly pointed out by Seguin and others as unexcitable.

THE STRUCTURE OF THE VESSELS OF THE NERVE CENTRES IN HEALTH AND DISEASE.

—Theodore Denke, special Pathologist of the New York Lunatic Asylum (*American Journal of Insanity*), in one of a series of articles on this subject, discusses certain structural alterations in the capillary system of the grey cortex of the brain, which, although presenting appearances of pathological change, may occur in cases which have presented no noticeable functional disturbances. This change, which he proposes to call callous degeneration of the capillaries, is characterized by a peculiar kind of swelling and induration of the endothelium cells, consonantly with irregular dilatations of the vessel, and, at some places, with an occlusion of the branchlets thus affected from the general circulation. This callous degeneration of the capillaries he thinks is always the result of an obstruction of the circulation of the vessel, sometimes, although not always, an embolus of the smaller nutrient

vessels due to a preceding stasis in the venous system, associated with arterial engorgement. These conditions of the capillaries are then, he thinks, the results of processes which stand at the very border between physiological and pathological conditions. As, however, they are observed in the brains of persons who died in apparently good health and with no previous history of disease, he regards them as pathologically only of importance in proportion to the extent in which they are found in any given case, or when with them other lesions or evidences of morbid processes are observed. He selects, as illustrations, two cases, in both of which there were marked febrile cerebral symptoms; an acute delirium, with a high degree of maniacal excitement; temperature from 102° to 104° Fahr.; pulse between 94 and 120, in an inverse ratio to the rise of temperature; lips and mouth dry; tongue dry and cracked; respiration 20 to 24, at times shallow with heavy breathing; pupils small, at times not responding to light; face and extremities at times cyanosed. Death occurred in coma. The disease was of short duration. In short, cases characterized by an acute delirium so strongly simulating mania that it may, at least, be said to lie on the border line of true maniacal excitement of the insane, in both etiologically by a psychical and a physical factor. In both there was, as an anatomical basis, an acute disease, associated with a diffuse cerebral affection, in both a coincidence of circumstances and effects, composing the very soil in which insanity roots and from which it draws its nourishment.

In both of these cases, the capillaries of the cortex showed clearly the condition above described, also in the neighboring tissues peculiar bodies which seem to show the association between the capillary occlusions and diffuse inflammatory processes. These are peculiar round, elliptic or oval corpuscles, of various sizes up to the one-five-hundredth of an inch in diameter, perfectly transparent, so as only to be seen by their slightly refracting the light, and with a sort of white nucleus. They are only distinguished from the nuclei of the neuroglia, the ganglion cells and the lymphoid cells, by their not taking up the color from the carmine solution. Iodine solution imparts to them a light yellow color, and stains the nucleus dark. He regards them as migrated white blood cor-

puscles, surrounded by a peculiar gelatinous protoplasmic substance, the whole representing a new formation as the product of an inflammatory process.

ON SOME CHANGES IN THE GANGLION CELLS OF THE GREY CORTEX OF THE BRAIN IN ACUTE DELIRIUM, AND THEIR RELATION TO THOSE IN ACUTE INSANITY AND IN DEMENTIA.—Theodore Denke (*American Journal of Insanity*): The morbid changes here described were observed in the two cases discussed in the previous article, as well as in many others. While the writer forcibly points out the absurdity of the attempt to explain the nature of the clinical manifestations of a disease from the nature of the anatomical changes found after death, he still considers it equally true that whatever movements and alterations may take place in these most delicate structures in connection with normal manifestations of life, they are such that the individual elementary form is preserved; and that with any established deviation from such normal manifestation of life activity, a physical equivalent must be demonstrable, and *vice versa*; that changes of form and structure can but be regarded as the manifestation of the existence and influence of modified processes of life. In other words, he thinks it unphilosophical and opposed to observed facts to regard delirium and acute insanity as merely functional, and unattended by any visible changes in the structure of the nervous elements themselves.

The first change observed in these diseases, in the ganglion cells of the grey cortex of the brain, is in what appears like a granular or fatty fur, hanging like a loose covering over the body of the cell, while the cells themselves retain otherwise their usual form and appearance. This fatty fur was also observed surrounding the endothelial cells of the capillaries in the early stages of the condition termed callous degeneration. Although these lesions have occasionally been observed in the brains of those who had shown no symptoms of cerebral affection, yet they occur so much more frequently in cases like those under consideration when marked vascular lesions are also demonstrable, that there can be no doubt as to their pathological character. Their fatty character would seem to indicate that these deposits may be attributed to deficient loca-

oxidation, brought about by a deficient supply to the tissues involved of arterial blood. As the structure of the ganglion cell does not appear to be otherwise modified from its normal condition, we may reasonably infer that the lesion is not necessarily a permanent one, provided the defective aeration or nutrition of the tissues is corrected.

The further stage of this lesion when progressive, shows the roots of the cells somewhat shriveled, contracted or drawn in, and in a still more advanced stage they almost entirely disappear. Thus far, the peripheral processes are apparently unchanged. With the further progress, however, of the lesion, we observe that the peripheral processes become also affected. They are irregularly contracted, more or less tortuous and of a varicose appearance, and cannot be traced so far upward from the cell as when normal. The cell body also passes through a series of pathological processes; the roots having disappeared, the body is more solidified and contracted, and still later fissured, so that the now opaque and granular nucleus seems to be escaping from the cell, or the body of the cell may be in a condition of "cloudy swelling." The most advanced stage of degeneration observed in acute insanity is the condition of "glassy opacity" of the cells, and even in this state a nucleus may be often detected, indicating, perhaps, that the function of the cell is not yet wholly abolished.

The changes described would seem to indicate: first, a gradually progressive embarrassment and limitation, but not an absolute inhibition of function, just such a sequence, indeed, as we observe in the actual clinical history of the insane; later, a condition that must suppose a total inhibition of function while yet so much of the anatomical structure of the cell remains, that we cannot deny the possibility of repair and return to a normal condition. In cases of chronic dementia, however, the cells are constantly observed to have wholly lost their normal anatomical structure, presenting what is termed the condition of "pearly degeneration of the pyramidal cells of the convolutions of the brain." This condition is especially observed in the precentral and upper frontal convolutions. From this condition we cannot conceive that restoration is possible.

THE SIGNIFICANCE OF FACIAL HAIRY GROWTHS AMONG INSANE WOMEN.—Dr. A. M. Hamilton (*Medical Record*, March 12th,

1881,) gives the results of some recent studies of this subject, from which he concludes: (1) Abnormal growth of hair, especially upon the face, is frequently connected with disturbed function of the pelvic organs of women. (2) In the insanity of women, especially when it lapses into dementia, and cutaneous nutritive changes, such growths of the hair are by no means of uncommon appearance. (3) Their unilateral character, so far as preponderance in growth is concerned and their association with unilateral cutaneous lesions, such as bronzing and nail changes indicate their nervous origin. (4) Their appearance chiefly upon the face in insane patients, and in relation to trophic disorders incident to facial neuralgia, points to the fifth nerve as that concerned in the pathological process. (5) The development of hair, with the deposit of pigment, and skin lesions, and occasional goitrous swellings, suggests the inference that the neuro-pathological process which leads to the growth of the hair in the chronic insane is akin to that which gives rise to Addison's disease.

COMPRESSION OF NERVE TRUNKS IN NERVOUS AFFECTIONS.—Instead of the massage mentioned by Dr. James McCraith in the *British Medical Journal*, Aug. 14, 1880, Gustav Cederschjold (*International Journal of Medicine and Surgery*, Feb. 12, 1881), (*Schmidt's Jahrbucher*, 1880), employs pressure by the tips of his fingers on the nerve trunks as a means of irritation. Several cases of writer's cramp, bronchial asthma, tabes dorsalis, talipes calcaneo-varus, and cramp in the leg were among those which exemplified the value of the treatment. In the bronchial asthma the paroxysms were arrested twenty times by irritation of the vagus, and only twice did the treatment fail. Tic douloureux disappeared in one case after three days, in another after two weeks, while in others the relief was only temporary. A crepitation is noticed in successful cases, which McCraith ascribes to the destruction of adhesions. He observes, also, that he has met severely painful cases of torticollis in which a sudden violent movement caused the affection to disappear with a snapping sensation. He calls the massage method of irritation, "nerve stretching without operation."

WORD BLINDNESS.—M. Magnan (*Gazette des Hopitaux*—*The Brain*) relates two cases

exhibiting the above phenomenon. One case was that of a man who was seized with right hemiplegia and aphasia after a fall. A month afterwards the patient recovered the power of speech, little by little; he understood spoken language; he wrote, either of his own accord or from dictation; but he was incapable of reading either print or manuscript, even when the latter had been written by himself; and he could not name letters inscribed upon a board.

The second patient presented similar symptoms. He recognized objects which were shown to him, but could not name them; could write words thought or heard, but could not comprehend or copy what was written. He had lost the notion of the value of gesticulations.

M. Magnan also cited a similar case, reported by M. Brouardel, where on post-mortem examination a hemorrhagic centre was found at the posterior part of the fissure of Sylvius adjoining the pli courbé.

He explains the pathology as follows: The retinal image is impressed on a first centre, at the level of the quadrigeminal tubercles; that is, the reflex centre for the eye. From this centre it is impressed upon a second, situated about the pli courbé, or perhaps about the occipital convolutions. In the second centre it is perceived as a sensation and received by the attention and the memory; this being the psychic visual centre. The ideas to which its elaborations in this centre have given birth cannot be utilized for speech, unless the communications between it and the convolution of Broca are intact. If they are interrupted, the patient can still see, speak, and hear, but he cannot acquire through his eyes any new idea.

As there is no disease of the eye, and because it is owing to a purely psychic phenomenon, this affection might be better described as "Cerebral Word Blindness."

Diseases of Women.

OVARIAN COMPRESSION IN HYSTERIA.—Bourneville, (*International Journal of Medicine and Surgery*, Feb. 5, 1881) *Le Progres Medicate*, No. 2, 1881, reports another cure of hysterical symptoms by pressure of the ovaries. He was called to Madame L., aged 22, to find her suffering from right hemianæsthesia and hemiplegia, stiffness of the joints, double ovarian hyperæsthesia, and a set inferior maxilla. The jaw fell and the

tongue was protruded upon the first compression of the ovaries, which lasted only a few minutes, but the contraction recurred as soon as compression ceased. Renewal of compression caused permanent relaxation and partially overcame the hemiplegia and hemianæsthesia. After a suspension on account of fatigue, a third compression overcame all the symptoms and the patient walked without difficulty. "Thus, when the medical man is called in attendance upon a patient offering the symptoms which we have described, he is presented with a good chance for their removal, to the great astonishment of assistants, if he properly practices ovarian compression, prolongs the same sufficiently, and does not stand in awe because of their return several times at short intervals."

Obstetrics.

RELATIONS OF GOITRE TO PREGNANCY AND DERANGEMENTS OF THE GENERATIVE ORGANS OF WOMEN.—Edward W. Jenks, M. D., LL. D., (*American Journal of Obstetrics and Diseases of Women and Children*, January, 1881) has an article under the above caption, in which he seems to show conclusively that a large majority of the goitrous necks that are met with in females depend upon some disturbance of the pelvic organs, particularly the ovaries and uterus. These cases often occur in young girls about the age of puberty, and also very often in multiparous and child-bearing women in whom they—i. e., the goitres—can be traced to functional or organic disease of the uterus or to pregnancy. Of all cases of goitre only five or six per cent. of the cases are found in men, although in some localities possibly 10 per cent. may occur. In studying the etiology of endemic as well as sporadic goitre, the doctor first examines the influence of the menstrual functions, and of the menopause, upon its appearance and development; secondly, the influence of pregnancy and delivery upon this affection; and thirdly, he gives some special attention to exophthalmic goitre:

1st. Influence of menstruation and menopause. In countries where goitre is endemic it has always been remarked that it makes its appearance coincidently with the arrival of puberty. It has also been noticed that puberty has played an important part in the causation of sporadic goitre.

2d. Influence of pregnancy and labor. (a) Pregnancy—By far the most numerous goitres connected with the uterine functions are those that are produced or increased by pregnancy and labor. (b) Labor—Causes purely mechanical preside over the development of the goitre that results from parturition. The repeated efforts of labor, interfering, as they do, with the returning circulation, produce hæmostasis in the thyroid gland and communicate to it an abnormal pressure, sufficient to produce the consecutive dilatation and relaxation of the veins of the gland. The thyroid gland, in its relation to the right side of the heart, fulfills an office similar to that of the spleen in its relation to the portal system. It is a reservoir always ready to receive blood whenever the circulation is obstructed in the superior vena cava. The goitre that appears suddenly during labor has often been noticed, and is probably what is termed apoplexy of the thyroid. The progressive form of puerperal goitre is much more common than the sudden form.

Coition seems to have an especial effect upon the thyroid gland, as Learain affirms that the necks of young girls swell after coition.

Exophthalmic goitre occurs most commonly in women. The phenomena are well marked and very noticeable. The first symptoms are palpitation of the heart and a rapid pulse which often beats one hundred and forty times a minute, while various other signs of nervous debility appear. Then follows enlargement and pulsation of the thyroid gland with violent beatings of the carotid arteries, and finally an unnaturally prominent appearance of the eyeballs is seen, which in some cases amounts almost to protrusion from the orbits. Notwithstanding the apparent gravity of these symptoms, this disease is not often fatal unless it is associated with organic disease of the heart. Prominent among the beginnings of this disease may be mentioned amenorrhœa, dysmenorrhœa, anemia, chlorosis, hemorrhages from piles, bilious diarrhœa, etc., etc. The symptoms are thought by some to be due to a neurosis of the cerebro-spinal tract, or rather of several vaso-motor centres in the cord, while the tumor may be produced by a paralyzing lesion of the trunk of the sympathetic. In the cases of exophthalmic goitre which the author has seen, some menstrual

or uterine disorder has always been present. Mention is made of a case of exophthalmic goitre which was caused by total suppression of the menses—the suppression in turn caused by family troubles, exposure, and general disregard for hygiene. Soon after the commencement of the amenorrhœa the thyroid gland became enlarged and the eyeballs protruded. Treatment directed to the thyroid gland alone did not avail, but when by judicious treatment the menstrual function was restored, the thyroid gland diminished in size and the eyeballs were restored very nearly to their pristine condition. This case, with others, seems to prove that the pelvic organs have much to do in the causation of goitre.

Passing over the pathology, diagnosis and treatment as given by the author, we give his conclusions:

1. There is indisputable evidence that there may be endemic and occasionally epidemic causes producing goitre in men as well as women, yet the evidence is equally indisputable that every form of goitre occurs among the latter in a much larger proportion than among the former.

2. The fact has long been established that in certain occult conditions of women, increased vascularity and enlargement of the thyroid gland may be produced as a consequence of some unusual excitement of the generative organs.

3. Violent parturient efforts may cause the vascular form of goitre, but under the influence of pregnancy there may be gradual enlargement of thyroid, lasting for years; while, on the contrary, a goitre produced by one pregnancy is sometimes cured by a subsequent one.

4. There are reasons for believing that, when goitre is caused by any disorder of the generative organs (excepting pregnancy), it is due more commonly to functional than to structural disease.

5. It is not as a consequence of phlegmasias or malignant diseases of the uterus or its annexes that goitre is developed; on the contrary, the disorders which more commonly cause or precede goitre are fluxions, congestions, functional diseases of the pelvic organs, or those disorders of menstruation which are of systemic origin.

6. As many goitrous necks among women are due solely to some derangement of their

generative organs, the use of topical applications or remedies, however administered, unless made use of to remedy the cause, will be of no avail, and constitute irrational and unscientific treatment.

7. In the prognosis of goitre, we should always bear in mind the possible complications when the tumor is of any considerable size, prominent among which are compression of the trachea, leading to dyspnoea or even dysphagia, and compression of the recurrent laryngeal nerves, producing harshness of the voice and sometimes aphonia.

8. When the goitre is not large and is manifestly dependent upon some derangement of menstruation, some functional uterine affection, or has suddenly developed in consequence of pregnancy or violent efforts in labor, the prognosis is favorable, although it is not certain that there will be a rapid disappearance of the deformity.

Surgery.

REDUCTION OF A STRANGULATED FEMORAL HERNIA.—Dr. Karl von Ruch, of Ohio, (*Physician and Surgeon*, Feb., 1881), reduced a femoral hernia which had been strangulated all day, and which had resisted all ordinary methods of attempting reduction, by introducing two fingers into the vagina and making counter-pressure through the abdomen with the other hand, thus getting the gut between his fingers and making traction while an assistant pressed upon the tumor. By this means, success was attained in a few moments.

EXCISION OF PART OF THE STOMACH.—The second case of this operation on record has recently been performed by Billroth, (*Weiner Medicinische Wochenschrift*, Feb. 5, 1881; *Chi. Med. Rev.*, March 20, 1881.) He determined to operate because of the rapid emaciation of the patient, evidently because of a tumor in the stomach. He found a partly knotty infiltrated cancer, covering the pylorus, and a little over a third of the under part of the stomach. About fifty stitches were made with carbolized silk to bring the parts in apposition after removal of the tumor, and, the wound being washed with carbolated water, the organ was replaced. There was no pain or vomiting following the operation, and on the seventh day after the patient was doing well, being able to take broth, eggs, and coffee without distress.

SKIN GRAFTING.—Dr. J. E. Piloher (*Annals of Anatomy and Surgery*) makes the following interesting statements respecting this subject. When placed in position, the grafts behave as follows: At about the second day the outer horny layer begins to separate, so that by the fourth day only a faint, pale spot marks the insertion, or there may be left no evidence at all. By the sixth day, a faintly vascular tuft of granulations appears here. This becomes glazed, and in a few days more the usual appearance of a cicatrix is found. The patch is usually circular, and presents slight ridges. Its aspect as a whole is difficult to define, although it has been said to bear some resemblance to a limpet-shell. This patch continues to increase in size until it reaches its maximum, which is rarely more than two centimeters in diameter. The average is about one centimeter.

The tissue formed is not skin proper, but what is called cicatricial tissue, and is marked by a liability of the newly healed surface to a rapidly destructive ulceration under slight disturbances. Practical observation has demonstrated that here, where the growth of epidermis is rapid and from a large number of centers, the resulting cicatrix is much less violently contractile in its tendencies, much softer and more skin-like than the ordinary cicatrix, and much less liable to destructive ulceration.

Grafting is indicated in all cases where there is loss of integument, whether of long standing or immediately after granulation has set in. It is indicated—

1. In all wounds in full and uniform granulation, where there is slow healing or where we desire to accelerate it.
2. In chronic wounds or indolent ulcers of old or cachectic persons. It may be used with advantage in varicose ulcers with callous margins.
3. In those cases of extensive wounds where spontaneous cicatrization would be attended with considerable retraction of the parts, as in burns and scalds, I would lay especial stress upon this indication, since by following it up conscientiously many cases of great deformity can be prevented.
4. In wounds of hard surfaces covered with skin only, as in front of the tibia.
5. In cases of deformity from contraction of old cicatrices a portion of the old cicatri-

cial tissue should be dissected up in such a manner as to give to the parts their natural appearance and mobility; then upon the granulating surface thus obtained epidermic grafts should be introduced.

6. In gaping amputation wounds.

7. In ulcers and granulating surfaces upon mucous membranes, as in the os uteri and vagina, where a hard, contracted cicatrix is undesirable.

In addition to these, which I have gathered from general practice, M. de Wecker gives the following indications in ophthalmic surgery: (a) It ought always to be employed in cases of burn of the eyelids or neighboring parts, which give rise to suppurating wounds, and by faulty cicatrization of which deformity or displacement of the eyelids would be caused; (b) it can be very advantageously used in cases of partial or complete ectropion of the eyelids in consequence of cicatricial contraction in their neighborhood—burns, caries, fractures, etc.; (c) [As modified by Wolfe] it may with advantage take the place of all blepharoplastic operations; (d) it ought to be employed in all cases in which the eyelids have undergone a considerable loss of substance in consequence of an accident, or after an operation from which a suppurating wound remains.

Before introducing grafts, the patient should be in the healthiest condition possible, and the surface upon which they are to be applied should be prepared by careful tonic treatment and brought as nearly as possible to the health standard, the most favorable condition for the reception of grafts being that the ulcer should be in a condition of active, healthy granulation, and the more nearly that is attained the less danger is there of the failure of the graft.

The grafts should be obtained preferably from a wart, and, failing to get that, from some portion of the patient's body, if he be in a healthy condition, or from some other healthy individual. The epidermis, from most conveniently the forearm, should be raised with a pair of forceps and a sharp scalpel passed under, only sufficiently deep to draw blood. The piece thus obtained should be divided upon the thumb-nail into bits having the diameter of about a millimeter. Should a wart be obtained, it may be treated in the same manner. Whole warts will not answer the purpose. The granulating sur-

face then having been thoroughly cleansed and bathed with an antiseptic lotion, the bits of epidermis already obtained should be laid upon it about half a centimeter distant from one another and from the edge of the wound. All should now be covered with antiseptic and protective lint. This should not be removed until the fourth day, when the surface should be carefully cleansed with an antiseptic spray, or carbolyzed wash should be allowed to trickle over it, great care being exercised not to disturb the grafts. It should then be again covered with lint, and upon the eighth day another examination made. At this time, if necessary, additional grafts may be introduced in the manner heretofore described.

The results of skin and epidermic grafting thus practised may be enumerated as follows:

1. A more perfect cure in all cases.
2. A cure where in many cases there would otherwise be a permanent and annoying ulcer.
3. A cicatrix more soft and mobile and less liable to destructive ulceration than in the ordinary process.
4. Entire absence of contraction or deformity.

Skin Diseases.

TREATMENT OF ECZEMA, ETC.—At a recent meeting of the Berlin Medical Society, this subject was discussed. (*Int. Jour. of Med. and Surg.*, March 10, 1881.) Dr. Lassar recommends covering the inflamed parts with disinfecting oils in acute cases, and bandaging with cloths saturated with the same or with melted ointment, and applied after cooling. He thinks that absolute cleanliness and protection from the air are essential in the treatment. One to two per cent. of carbolic acid is added to the oil, and when this is not well borne he substitutes salicylic acid in the same proportion, or thymol (.5 to 1 per cent.) For chronic eczema, particularly in the face of children, he recommends the following:

| | |
|---------------------------|-------|
| R. Acidi salicylici | 2 |
| Zinci oxidl. | |
| Amyli. | ss 25 |
| Vaselini | 50 |
| Misce et fiat pasta. | |

Dr. Lewin testified to the value of Dr. Lassar's treatment, particularly the disinfecting oils in relieving tension and preventing irritation of the air and autogenous

evaporation. Based on an experience of 17 years and 2,000 cases of chronic eczema, he recommends ergotin, a remedy first suggested by him for this disease, and with which he has had excellent success. He believes that in eczematous patients there is a morbid condition of the vaso-motor nerves; hence, the necessity for ergot to contract the vessels. He administers $\frac{1}{2}$ to 1 grm. or more, daily, to adults. In the same number of the *Journal* is a translation from *Deutsche Medicinische Wochenschr.*, No. 8, 1881, in which Dr. Meyerhoff recommends the subcutaneous injection of ergot in chronic eczema, and also for varicose ulcers of the leg. And the oil of ergot, which has hitherto been a waste product, eliminated in the preparation of ergot, has produced excellent results for Dr. J. V. Shoemaker in acute eczema, in cracked nipples, in herpes of the genitals and in various other affections, as reported in the *Oil and Dry News*. The cheapness of the oil is considered by him as an important recommendation.

Ophthalmology.

DETACHED RETINÆ.—Dr. Cheatham, of the University of Louisville (*Louisville Med. News*, Jan. 15, 1881), reports two cases of detachment of the retina, one from a gunshot wound, the other from the act of blowing the nose. In the latter case there were slight evidences of previous disease, but the vision was perfect until the patient's effort to discharge the accumulations in the nares, when she became suddenly blind in the right eye. Ophthalmoscopic examination showed detachment of the retina.

PREVENTION OF OPHTHALMIA PURULENTA NEONATORUM.—The methods employed by Credé and Olshausen (*Archiv. f. Gynecol.*, Bd. XVII, p. 50—*Centrab. f. Gynecol.*, No. 20, 1881—*Berlin. klin. Wochenschr.*—*Int. Jour. of Med. and Surg.*, March 10, 1881,) are somewhat similar, and are reported as eminently prophylactic. Credé puts a drop of a solution of silver nitrate (1:50) into the eyes of all infants born of mothers affected with vaginal catarrh, and then covers the eyes with fomentations with salicyl. solution (2:100) for twenty-four hours. Where he had previously had 9.14 per cent. of his cases affected, not one of the 199 cases in which these precautions were taken had the disease. Olshausen washes the eyelids with a 1 per

cent. carbol. solution before the eyes are open, and even before the trunk is born, and afterwards bathes the eyes themselves with the same solution. His cases were reduced from 8.8 per cent. to 2.6 per cent., and the few cases he had were much milder.

RELATION OF SHORT SIGHT TO EDUCATION.

—Few will dissent to the statements of the ophthalmological section of the International Medical Congress, held at Geneva in 1877: (1) The ordinary causes of myopia are heredity and eye work, the influence of which may be separate or combined. (2) Hypermetropia may be transformed into true myopia, under the influence of near work, passing through emmetropia. (3) The progress of civilization, and particularly of school education, tends to increase the extension of myopia. (4) The predisposition to myopia is often, but not always, hereditary. The influence of race upon this predisposition is still an open question. (5) In the use of the eyes for near work, three principal factors concur, with predisposed individuals, to produce the anatomical lesions of progressive myopia. These are in the order of their importance, accommodation, convergence of the visual axis, and oculo-cephalic congestion. (6) The conditions of age, attitude, light and duration under which eye work is performed, as well as the character of the objects used and the state of the visual apparatus itself, have a powerful influence in the development of myopia. (7) The prophylaxis of myopia requires a combination of individual, school and domestic hygienic measures, in great part attainable by the co-operation of physicians, educational bodies and the authorities. Among these measures should be included the use of convex glasses by hypermetropes.

Therapeutics.

THE ACTION AND USE OF CERTAIN REMEDIES EMPLOYED IN BRONCHITIS AND PHTHISIS.—Dr. Lauder Brunton (*London Lancet*) makes some valuable observations on the above subject. Cough and expectoration are the most marked symptoms occurring in the course of bronchitis and phthisis. The relief of these by the so-called sedatives is common practice. Cough may be excited by direct or reflex irritation of any branch of the vagus, and its treatment consists in allaying or removing this irritation. Glutinous

or saccharine substances in the mouth are well known agents, acting, probably, by soothing irritation existing at the root of the tongue and around the fauces; and, therefore, these factors being removed, the irritation of the parts deeper than those affected by the remedies is lessened. The remedies themselves shield the irritated mucous membrane, or excite a flow of saliva and mucus, or, possibly, possess other remedial powers of which we are at present ignorant. A linctus containing morphia has a distinct sedative action on the peripheral nerves. In laryngeal phthisis, the cough is best treated by blowing through a glass tube, at the moment of inspiration, a powder composed as follows: morphia, one-sixth of a grain; starch, two grains. Opium introduced into the stomach is very effective, but there is danger of the digestive functions being upset. If left alone, the cough exhausts the patient by the muscular efforts and want of rest, besides causing similar congestions of the heart, kidneys and intestines, to those seen in the cutaneous veins during the paroxysm of coughing. Hence, opium should be so given as not to disturb the digestive functions. The following is a sample: solution of muriate of morphia and dilute hydrocyanic acid, of each eighteen minims; spirit of chloroform and dilute nitric acid, of each one fluid drachm; glycerine, three drachms; infusion of cascarrilla or quassia, two ounces; a sixth part to be taken three or four times a day. To diminish congestion potash has a marked effect, well seen in suffering from consolidation and softening over a limited area. In ordinary health, crepitant râles will be heard limited to one spot. Should the patient catch cold, dry râles extending some distance around the irritated spot will be heard and the cough becomes troublesome with very little expectoration. If potash be now given, especially the citrate, in a day or two the dry are replaced by the moist râles, the expectoration becomes freer, the cough at the same time subsiding. Now is the time to substitute for the potash nitric acid. If given at the correct moment, the cough yields and the expectoration diminishes. Potash then has a very marked influence in rendering the pulmonary secretion more fluid and abundant, while nitric acid has the opposite effect. A most powerful expectorant is warm food, and the comfort derived by chronic bronchitic patients from a cup of warm milk and a little

biscuit or bread, an hour before rising, is most marked. Perhaps the remedy, par excellence, is cod-liver oil, in most kinds of cough. While we may not say exactly how it acts its influence for good is incontestable. The doctor thinks it owes its curative property to its power of nourishing the rapidly forming pulmonary cells.

Public Health.

ADULTERATION OF FOOD.—Dr. Charles Stuart, (*National Board of Health Bulletin*), gives a very excellent report of an elaborate series of investigations respecting the adulteration of food. He finds that food adulteration is practiced in this country at the present time to as great an extent as prevailed in England at the time of the agitation which led to the enactment of repressive law. Our corn meal and our lard are pure. Our wheat flour is not mixed with alum, but the bakers use it. Our sugars are cleaner, but we have glucose admixtures which the English had not; and if our coffees are better it is owing more to the practice of home grinding bequeathed to us from the early days of the country, when grocery stores were not so common as they are now. The few samples of loose coffees which were found to be adulterated show that there is a tendency to debase the article, which would no doubt increase were the coffee mills to disappear from our kitchens until the condition of the market would be represented by the trash which is now sold as package coffee. On the other hand the remainder of the articles included in this report are found to be as bad, and many of them, as the peppers, allspice, cinnamon etc., in a worse condition than were the English supplies when official attention was directed to them. Fortunately with such exceptions as the alum in bread and baking materials, the sulphate of lime which often replaces cream of tartar in household baking, the debasement of milk by dilution, and the poisonous pigments used for coloring confectionery, the adulterations cannot be considered as deleterious. They affect the pocket of the individual rather than his health, so that the question of the adulteration of food should be considered not so much from a sanitary standpoint as from that of commercial interests, as being of the nature of a fraud in aiding in the sale of articles which are not what they should be.

Medical Jurisprudence.

THE MICROMETRIC METHOD IN THE DIAGNOSIS OF BLOOD STAINS.—Dr. J. G. Richardson (*Gaillard's Medical Journal*) gives the following as the results of his latest studies and researches:

1st. That in unaltered blood stains as ordinarily produced by the sprinkling of drops of blood upon clothing, leather, wood, metal, etc., we can, by tinting with aniline or iodine, distinguish human blood corpuscles from those of the ox, pig, horse, sheep and goat, wherever the question is narrowed down by the circumstances of the case to these limits.

2d. By the method I have devised we can measure the size of the corpuscles and apply the two corroborative tests of tincture of guaiacum with ozonized ether and of spectrum analysis to a single particle of blood-clot weighing less than one fifteen-thousandth part of a grain, a quantity barely visible to the naked eye.

3d. Hence, when an ignorant criminal attempts to explain suspicious blood spots upon his clothing, weapons, etc., by attributing them to the ox, pig, sheep or goat, or to any of the birds used for food, we can, under favorable circumstances, absolutely disprove his false statement and materially aid the cause of justice by breaking down his lying defence, even if twenty years have elapsed.

4th. But if the accused person ascribes the tell-tale blood to a dog, an elephant, a capybara, or any other animal in Dr. Woodward's list, it is useless to attempt to dispute his story on microscopical evidence as to the size of the blood corpuscles.

5th. In cases of innocent persons wrongfully accused of murder, and really stained with the blood of an ox, pig or sheep, testimony of experts founded upon measurement of the corpuscles would be valuable, but less conclusive, because, under certain circumstances, human blood corpuscles may shrink to the size of those of the ox, whilst under no known conditions do ox or pig corpuscles expand to the magnitude of those in human blood.

6th. In order to do away with ingenious objections of lawyers, that the murdered person may have been affected with some disease which altered the size of his blood disks, or that the articles of clothing, etc., upon which the stains were deposited had

produced, chemically or otherwise, some similar change in their magnitudes, it is very important to obtain promptly stains from the fresh blood of the victim made in the presence of witnesses upon portions of the prisoner's clothing or weapons, analogous to those upon which suspicious red spots are found when he is arrested. When this cannot be done, spots of the murdered person's blood sprinkled on white paper, and fragments of his lungs and kidneys should be carefully preserved, the former by rapid drying and the latter by preservation in diluted alcohol. These little precautions, which may in any instance prove to be of infinite importance, should be earnestly impressed upon coroners, district attorneys and policemen throughout the civilized world.

Anatomy.

ANATOMICAL REASONS FOR DEXTAL PREFERENCE IN MAN.—Dr. J. A. Wyeth (*Annals of Anatomy and Surgery*,) says: (1) Man is right-handed by preference, as a result of his anatomical development. (2) The arrangement of the embryonic protoplasmic elements is such that the liver, developing on the right side, greatly outgrows its opposing viscus, the spleen, and pushes the heart to the left of its original position in the median line, causing an obliteration of one of the two originally symmetrical arches of the aorta, and an obliquity of the remaining one. (3) This loss of symmetry involves an arrangement of the great vessels of the neck and upper extremities, by which the artery carrying blood to the right arm is more favorably situated, and receives more blood than the one to the left arm; while the left carotid and vertebral arteries, supplying the left half of the encephalon, which presides over motion on the right side of the body, are more favorably situated and convey more blood than the two vessels which have the same distribution on the opposite side. (4) This fact accounts for the development of the left half of the brain in excess of the right. (5) It is not the slight excess in weight of the viscera of the right side of the abdomen, which is given by some to be the cause of right-handedness, who argue from this that man must lean to the left, *i. e.* balance himself upon the left leg, leaving the right extremities freer for action. It is a matter of cubic inches, of bulk—in fact, of *cardiac displacement*. (6) Education, train-

ing by persistent effort, will overcome the natural tendency to dextral preference, and will render the individual more clever with the non-preferred hand, more equally adroit with both sides of his body, more symmetrical in muscular growth, will tend to equalize the two halves of the brain, giving a better cerebral development, and will consequently render him more serviceable to society and to himself.

Pathology.

TRANSPOSITION OF THE VISCERA.—Dr. C. A. Babcock (*Physician and Surgeon*, March, 1881,) reports the case of Thomas S. Beaudoin, born near Malden, Ontario, 1864, of healthy parents, in whom he found a lateral transposition of all the abdominal viscera and of the heart. The patient was right-handed, with no difference in development of the two sides that could be detected by careful measurement. Health usually good. A very loud "bruit de diable" was detected in the right clavicular region. A similar case, a girl ten years of age, came from Massachusetts to the Battle Creek Sanitarium, three years since, except that neither of the parents were healthy and the child had a marked scrofulous diathesis. Dr. August Förster thinks that the situation of the viscera is dependent entirely upon the position of the fœtus in relation to the umbilical vesicle, and that if for any reason the position be changed at a certain stage of development of the embryo, the location of the viscera may be changed. He says: "We always find the viscera laterally transposed in that individual which lies to the right, in double monster, united at the umbilicus."

Dermatology.

DIAGNOSIS AND TREATMENT OF RINGWORM.—Mr. M. Morris, (*London Lancet—London Med. Record*) says that strong irritants should be avoided, and believes that many old-standing cases of ringworm are the result of over-treatment, that is to say, a chronic eczema, produced by the remedies, and kept up for months and years, while the fungus all the time remains undisturbed. Hitherto carbolic acid has been the parasiticide *par excellence*, but Mr. Morris believes it to be too irritating, and he has lately substituted thymol and menthol, with great advantage. The following formula has proved most efficacious: Thymol or menthol, half a drachm; chloroform, two drachms; olive-

oil, six drachms. In very young children, less chloroform may be used, the object of this ingredient is to carry the parasiticide to the very bottom of the hair-follicle, and the use of the oil is to arrest the evaporation of the chloroform. As regards epilation, Mr. Morris uses it only in early acute patches, where there are a limited number of hairs affected, which are readily removed; but if the disease be old-standing, and the hair very numerous and readily breaking off, Mr. Morris thinks it more than useless to epilate.

Action of Remedies.

ACTION OF BROMIDES IN EPILEPSY.—Dr. A. Hughes Bennett, (*Eclin. Med. Jour.*, March 1881,) in an interesting paper reaches the following conclusions on the above subject: (1) In 12.1 per cent. of epileptics the attacks were completely arrested during the whole period of treatment by the bromides. (2) In 83.3 per cent. the attacks were greatly diminished both in number and severity. (3) In 2.3 per cent. treatment had no apparent effect. (4) In 2.3 per cent. the number of attacks was augmented during the period of treatment. (5) The form of the disease, whether it was inherited or not, whether complicated or not, recent or chronic, in the young or in the old, in healthy or diseased persons, appeared in no way to influence treatment, the success being nearly in the same ratio under all these conditions. (6) In 86.6 per cent. there was no trace of bromide poisoning. In the remaining 33.4 per cent. this was observed in varying kinds and degrees, but in no case to any serious extent, namely, physical weakness in 28.5 per cent., mental weakness in 18.8 per cent., and the so-called bromide eruption in 16.6 per cent.

Physiology.

CENTERS OF VISION IN THE CEREBRAL HEMISPHERES.—Dr. J. C. Dalton (*Medical Record*,) concludes an interesting paper on this subject thus: (1) Extirpation of the angular convolution causes loss of visual perception on the opposite side. (2) This operation is not followed by any disturbance of the intelligence, attitude, power of locomotion, or general sensibility. (3) It does not interfere with the general sensibility of the retina or conjunctiva, the reaction of the pupil to light, nor with the normal consensual movements of winking. Its effects are therefore confined to the exercise of visual sensibility.

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Original Communications.

The Public School in its Relation to Insanity.

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A NOTE of alarm has recently been sounded in various quarters, regarding one of our northern institutions, from which we had been led to anticipate the most salutary results, and to which, in the east, an unquestioning faith has been attached.

We have all along been regarding the public school system as the panacea for all evils, whether they be of a social, political, or moral character, and the man who ten years ago should have dared to raise the question of its complete adequacy to meet the requirements and subserve the best interests of the whole American people, would have been regarded as either wanting in sincerity, or as the foe of all human progress and civilization. The public school was a social contrivance, in which was felt so great a pride and confidence, that those sections of our country which did not provide for it, were looked upon with a supercilious pity bordering strongly upon contempt.

It is scarcely necessary to say, that public education at public cost is a New England idea, originating in the supposition that book-learning was in itself so elevating and purifying as not to be neglected in the formation of good citizens. If this proposition be true, then the legislation which was the fruit of the idea was eminently wise and sagacious.

The commonwealth of Massachusetts in 1647, enacted that every township of fifty householders should have some person appointed to teach all children applying to him to read and write, and that his wages

therefor should be supplied either by the parents and guardians of the scholars, or by a public tax. Every township of twice this number of families was required to provide a school of such grade, that students might therein be fitted for the university. Such was the inception of a system which has grown to be so vast and complete, that were the theory upon which it is founded a correct one, we have a right to look in Massachusetts for its happiest and most salutary results. None of the conditions of success have been withheld; money, labor, intellect, sagacity and business talent have been expended upon the system without stint, and as reasonable citizens we ought, by this time, to make inquiry regarding the harvest we are reaping. Let us examine briefly what these results, as so far gathered, really are.

It was assumed by the founders of the system, that general education was to be the safeguard of the republic, which was quite correct. It is further assumed that the education now afforded by the public school is of just the sort to compass this desirable object, which is quite incorrect.

The benefits to be garnered were in the shape of vast improvements in the social, political and intellectual condition of the citizens in the commonwealths where public education should be fostered. Is it at all impertinent if we ask the question, "Has such been the case?"

The query is best answered by a comparison of those communities which have been longest under the public school influence, with those which have been either wholly or for the most part without it.

For convenience sake, it is desirable to first examine the political condition which has developed under the public school regimen, not, however, because it is most important, but for the reason that it was one of the first fruits of the system. No sooner had public

education become a part of municipal politics, than the cry arose on all sides for the "higher education," which meant simply that through the distribution of the funds intended for educational purposes, a political power was to be wielded, and the individuals with whom this power of patronage lay, wished to make it as mighty as possible; and they have succeeded beyond their fondest dreams or most extravagant anticipations. In New York city alone, nearly \$4,000,000.00 annually are spent upon public schools, and the results are mainly apparent in political corruption and social deterioration. The whole state of New York, during the year just ended paid \$10,296,977.26 in support of the common schools, or a sum of two dollars for every man, woman and child in the commonwealth. Massachusetts and most of the older Northern states are actually, if not avowedly struggling in the folds of a similar hydra of taxation. The local politicians of almost every city of any considerable size, make it a point to display their patriotism in fostering the "higher education," and what does this, their lofty-minded and commendable zeal imply? Simply that contracts for expensive school buildings are to be let to political favorites who will "stick by their friends" on election days; more teachers to be hired and paid; special text books to be provided, until now in almost every city school the number would confuse older heads than those which they are intended to strengthen and develop. Besides the elementary branches formerly taught, we must have a teacher of music to impart instruction to a mass of pupils, of whom not one in five will ever have the time and ability to sing a note after leaving the school. But never mind—music is so elevating and refining, even to those who have not the slightest conception or appreciation of harmony, we must provide for its cultivation at the public cost. Let us also furnish for these same pupils a teacher of drawing; art is so ennobling it cannot fail to produce us better citizens. No matter if in order to earn an honest living, these pupils shall in after life be destined to carry a hod, or break stone upon the public thoroughfares, let us teach them all the science and art of perspective and free-hand drawing at the cost of the tax-payer.

If these two ornamental branches of learning be desirable, how much more so is the

art of correct reading and dramatic expression. We must have a peripatetic teacher of elocution, whose duty it shall be to wander through the various schools of our cities, and impart from one to two thousand dollars worth of voice culture, in weekly installments called lessons.

O, philanthropic educators of the rising generation; what wise provisions for tender years! O, admirable large-minded statesmen, what artists, what prodigies of culture and oratory will your system of public education produce! The burdened tax-payer should in his daily orisons remember you in gratitude.

I would not be understood as endeavoring to belittle the importance or desirability of these ornamental branches of learning.

To such as have the time, taste, talent or means to pursue them, such culture is eminently fit and proper, but their introduction into the curriculum of the public school has been most unjust to the tax-payer and disastrous to the pupil; unjust, because ten men are obliged to pay for something of no avail to their own children, in order that those of the eleventh may be provided therewith; disastrous to the pupils from the multiplicity of subjects forced upon their attention; but glorious for the local statesman on account of the increased patronage placed in his power.

The Superintendent of the Board of Education in the city of New York, in his report for 1879 says, "In our day, and in the condition of American life, we need all the power of an educated intelligence in order to lift the masses, as well as to maintain an equilibrium in the forces of society. The distribution of knowledge is as necessary as the distribution of light. We need the distributive power of systems of education, which will reach the lowest abodes and penetrate to the furthestmost hamlets of the land. The best education of the people will thus become the best government of the people."

Here we have in a terse and compact statement, the theory upon which the system of public education rests. The "distributive power" of the system reaches the lowest abodes, and under those circumstances is the "best government of the people" to be produced. I am not aware that such has been the effect in New York. If I am wrong in saying that the distributive power of the

public school system of education has not raised the quality of men's moral natures in New York city or anywhere else, I beg to be corrected. If the education provided by the public school is what is claimed by its friends, and expected by those who pay for it, the fruits ought, by this time, to be manifested "in our moral advancement as a people; in a higher tone in our society; in the greater purity in our politics and incorruptibility of our legislators; in the increased probity of the executive officers of our state and municipal governments; in the sobriety of our matrons, in the steady decrease of vice and crime, of idleness and vagrancy." I will not irritate the friends of the higher education by inquiring if they find such results following a half century of experience with the public school.

As a matter of fact and public record, crime and vice, political jobbery and corruption, dishonesty in business, pauperism, vagrancy and social immorality have steadily increased in those sections of country which have been longest under the humanizing influence of the so-called higher education.

Although comparisons may seem odious, let us turn to the census reports of certain sections of the United States, and see if the statistics will throw any discredit upon the claim put forward, that the public school has ignominiously failed to accomplish its political and social mission. Take the six New England states and place them in comparison with Delaware, Virginia, Maryland, North Carolina and South Carolina; eliminate carefully the effect of foreign immigration and the disturbing influence of the civil war, which shook the foundations of society, and examine the social condition of the two sections. They are all of the "oid thirteen," with the exception of Maine, and founded about the same time by settlers of the same nationality, and for the most part, of the same religious faith. In order to eliminate the effect of the foreign element, we will compare only the native white population of the two sections; and that we may avoid the disastrous moral and political influences of the civil war, take the statistics of 1860 for the comparison. The census of that year shows the native white population of New England to have been 2,665,945, and such had been the distributive power of the public school, in the matter of education, that of

this number there were but 8,543 adults who could not read and write; or to put it in simpler terms, only 1 in 312. On the other hand, in the six Southern States mentioned, with a native white population of 3,181,969, the proportion of persons who could neither read nor write was as 1 to 12. We should therefore expect that vice, crime, pauperism, and all the essential features of bad citizenship, in the Southern States, would bear a proportion to the same evils in New England, of 312 to 12. If, therefore, the public school has wrought its mission successfully in producing moral, upright, thrifty, law-abiding citizens, the criminal classes of New England should be only in a proportion of 12 against 312 in those States which have not fostered the plan of general education. But unfortunately the boot is upon the other foot. New England society produced one native white criminal to every 1084 inhabitants, and the six Southern States named, one native white criminal to every 6,670; a balance on the wrong side of the ledger of more than six to one. Foremost in the criminal record stands the commonwealths of Massachusetts and Connecticut, which have been most ardent in support of the public school and longest under its formative power.

Pauperism and tramping have been prevalent in New England, as compared with the Southern States, in the proportion of more than four to one.

These figures do not prove what at first they would seem to, viz: that educational advantages are the natural antecedents of crime and profligacy; not at all. They do not prove that a wholesome disciplinary culture is not the proper means of producing a cheerful, thrifty and law-abiding race; but they do prove that the public school is not the engine of morality and reform which its friends have sincerely supposed it to be. If such be the condition of the adult population, let us interrogate the pupils of the schools themselves, and see to what fitness their preliminary training has brought them for the great battle of life.

The *Chicago Times* thus briefly and correctly summarizes the report of Mr. Walton, agent of the Massachusetts State Board of Education, on the public schools of Norfolk County, Mass.:

"The examinations were, in the first place,

of the simplest and most practical character. There was no nonsense about them. They had but one object—to see if, in the common schools, the children were taught to read, write and cipher. The showing made by some of the towns was excellent and of them we shall speak hereafter. In the case of others, and of many others, it is evident from what Mr. Walton says, and still more evident from what he intimates, that the scholars of fourteen years of age did not know how to read, to write or to cipher. They could, it is true, repeat the pieces in their school readers, and parse and spell in classes, and rattle off rules in grammar and arithmetic, not one word of which they understood; but if they were called upon to write the shortest of letters, or the simplest of compositions, or go through the simplest of arithmetical combinations, their failure was complete. They had in fact been taught what to them were conundrums without end; but the idea that the teaching was to be of any practical use in the lives of these children when they grew to be American men and women, formed no part of the system, and evidently had never entered into the heads of the instructors. Then, when the letters and compositions were brought in, the ingenuity in bad spelling seems simply incredible. Unless the different misspellings of the word “scholar,” for instance, were given, as in this volume they are, who would believe that they would be some two hundred and thirty in number! Then again, sixty-five different spellings are enumerated for the word “depot;” one hundred and eight for the common word “whose” and fifty-eight for “which.” Out of 1,122 pupils who used the adverb “too” in the narratives, 859, or nearly seventy-seven per cent. of the whole, spelled the word incorrectly. Then on pages 218, 219 and 246–248 of the report, we are given a fac-simile lithograph of these letters and compositions, showing their average excellence in certain of the towns, and anything worse, it would be hard to conceive. Language fails to do justice to them; they only can do it themselves.”

If we desire further testimony bearing upon the same point, we have only to read the paper of Charles Francis Adams, Jr., on “The New Departure in the Common Schools of Quincy, Mass;” where he says of an examination, “the result

was deplorable; the schools went to pieces * * *. In other words, it appeared as a result of eight years of school teaching, that the children, as a whole, could neither write with facility, nor read fluently.” All this in a State, which by general consent, stands highest in the excellence of its public school system. During the fiscal year just ended the city of Boston, with her 50,543 pupils, paid \$1,515,366.00, in support of public education, or a sum of \$4.65 for every man, woman and child dwelling within the corporate limits; nor is the end yet reached. At the present writing, a bill is under discussion in the Massachusetts House of Representatives, to legalize the teaching of military drill, gymnastics and calisthenics, in the public schools of the State. When we reflect upon the fact that this stride toward the “higher education” is for the benefit of those very schools which furnished us with 230 misspellings of the word “scholar,” and sixty-five for “depot,” we can hardly forbear smiling at the legislative sagacity displayed in the Bay State capitol.

The Superintendent of Public Instruction for the State of New York, says in his eighth annual report, “that many teachers who have been over a very extended ground of higher mathematics, failed utterly in the simplest principles of mental and practical arithmetic. More have spent busy terms in the study of the classics, but have no knowledge of the first principles of their own language, while to find one who knows anything of the geography of his own, much less of foreign lands, is rare good fortune indeed. And yet these are not novices, but representative teachers, as the average term of their experience shows.” (Page 39.)

These then, are the acknowledged results of a twenty years’ experience of the public school system, viewed from a political and social standpoint, and for which we were, in 1870, paying annually more than \$64,000,000.

In collecting this testimony, I have selected what may honestly be regarded as indicating the average results. I would not discourteously represent the public schools of Massachusetts as better than those of her sister States, and it is to be devoutly hoped they are no worse.

There is over and above all this, another feature presented for examination, which is worse than failure; it is alarming and threat-

ens to be disastrous. I refer to the mental and nervous condition, which is the resultant of the popular system of education. When in a State like Massachusetts, we learn that asylum provisions are required for nearly 5,000 insane persons, or that the number of these unfortunate people is as 1 to 356 of the whole population, the medical profession is interrogated as to the cause and its remedy. Preventive medicine is as much the province of the medical man as the curative art, and is that branch of the profession in which the State is most interested. While the spread of epidemic and contagious diseases is carefully guarded against by the strictest sanitary and quarantine regulations under governmental control, little has been done to arrest the increase of insanity; indeed the States have had both hands full in providing for their insane without inquiring, whence the supply.

It would be impossible, within the limits of a paper of this kind, to enumerate all the conditions and circumstances, both predisposing and exciting, which conspire to render men and women of unsound mind. Indeed were it possible, it would be irrelevant.

It is a melancholy fact, that of ten persons who become insane, five recover and five die, sooner or later, during the attack. Of the five who recover, not more than two remain well during the rest of their lives, the other three sustain subsequent attacks, during which at least two of them die. We are thus forced to the conclusion that madness is not wholly the result of fortuitous circumstances. That certain accidents, as anxiety, grief or ill-health, are reported as having conspired in a given case to produce mental derangement, gives us very little insight into the problem of real causation. How does it happen that another individual, subjected to exactly the same disturbing influences, does not go mad? It is certain that the aggregate of real causes cannot be the same, when the results which follow are so different.

The truth is, when we are estimating moral causes, we are dealing only with apparent and superficial external ones, and neglecting those internal and most potent defects which lie in the mental organization of the individual himself. If all the circumstances, external and internal, could be carefully noted and appreciated, the disease would never be regarded as an accident or a divine

dispensation, but the legitimate result of a chain of antecedents, covering the whole life and training of the individual, and more often that of his ancestry before him. Although by some writers, hereditary taint has been reckoned as operative in the production of more than half the cases of mental alienation, it is foreign to our purpose to engage in a discussion of that class of inherent causes—they may be regarded as the natural or inevitable defects because inherited, and dismissed as beyond present remedy.

We cannot prevent the children of tuberculous or phthisical parents from inheriting a tendency to the same or kindred disorders; we cannot prevent cancerous parents from planting the seeds of their malady in the organisms of their offspring; it is only the operation of the natural law, that like produces like. The harvest of grapes is not from thorns, nor figs from thistles.

Not so, however, with that other internal condition, the acquired insane diathesis, which results from the defective and vicious training of early life. Here is the legitimate field for the operation of prophylactic medicine; it is precisely here that the alienist physician may hope to accomplish something towards relieving society in some measure of the incubus of madness which is the scourge of modern civilization.

The object of all mental and physical training in the young, is to fit them to bear the burdens of after life with equanimity and fortitude; to place them in sympathy with the great current of human progress as it rolls onward from one generation to another.

Life in every form, physical or mental, morbid or healthy, is simply a relation; its manifestations arise from a reciprocal action of the individual organism and external forces; health as the consequence and proof of a successful accommodation to the conditions of existence, implies the preservation, well-being and development of the organism, while disease marks a failure in organic adaptation to external forces, and leads, therefore, to disorder, decay and death.

Whatever contributes to develop the intellectual and moral character of the child, is a means towards enabling him to so accommodate himself to the conditions of life, that the friction itself may stimulate healthy growth, instead of stranding him a mental

wreck upon society, ere the voyage is half finished.

Probably there is no more potent agency in the formation of the intellectual and moral nature of our youth, than the public school. How is it fulfilling this most important function, the function of all others it was created to subserve? Can what is taught there and the way in which it is taught, be reasonably expected to produce symmetrical minds, with logical, vigorous, and healthy habits of thought? Can the cramming process, practiced in the public school upon the minds of youth, during the formative stage, not only of the brain but of the whole physical system, produce men and women capable of grasping the general conditions and requirements of society, and adapting themselves thereto without friction, when individual responsibility takes the place of parental guidance? These are questions to which the statistical reports upon insanity in Massachusetts, Connecticut, and New York afford a sufficient reply.

In those fortunate individuals where the insane temperament is not inherited, it may be, and often is easily produced by enforcing an unnatural precocity in the methods of education. Parents and guardians who delight to see their children prodigies of learning or talent must bear in mind the risks of future disaster it entails; "In pueritia senex, in senectate puer."

The aim of a good education is not realized in a smattering of many branches, and only a confused memory of each; it is in a discipline which shall develop a power and habit of thought capable of maintaining its equilibrium under the adverse circumstances of life. I believe more wholesome discipline is gained by a few subjects thoroughly mastered, than by the whole curriculum of the public school but half comprehended. "The man with one book" is a formidable adversary, but he gained his reputation before the days of public schools. Parents seem to consider that mental culture is embodied in leaving the grammar school at a certain age, and the high school at a prescribed period thereafter.

A certain number of boys and girls, each differing from the others in disposition, temper, mental power and nervous organization, are clamped to the lathe and turned to a pattern; the system takes no account of in-

dividuality. The going out and coming in; the rising, sitting, studying and reciting are done by the pulling of a string or the stroke of a bell. The same penalty is measured out to the nervous, sensitive child, as to the vicious gamin from the gutter. The heedlessness of obstinacy and the confusion of diffidence are all the same to the machine.

Such is the practical working of a system which cost us in 1870 more than \$64,000,000; and for what?

Go into the public examinations of these reservoirs of higher education and you will find "the mass of the pupils are unable to read intelligently, to spell correctly, to write legibly; to describe understandingly the geography of their own country, or to do anything that reasonably well educated children should do with ease. They cannot tell the meaning of any but the commonest words that they so illy read and spell; they can give rules glibly; they can recite from memory; they have some dry, disjointed knowledge of the various subjects studied;" in fact, they are well versed in what may be styled class-room tactics, and in presence of the School Board will doubtless perform some very astonishing intellectual evolutions, drilled upon for the occasion, until they have attained all the precision of a battalion of grenadiers on dress parade.

Now, what is to be the future of these embryo citizens, whose whole course of training during the early formative period of life has consisted in cramming, crowding and over-stimulating the mind? Some, doubtless, who have inherited the naturally bright intellects and strong physique of their more unlettered parents, will pass the ordeal and go on to achieve success in life, and the effects of their training will not immediately manifest themselves. The most we can say of these, is, that the number is few, and they may be regarded as the fortunate heirs of a princely inheritance. They are born under a lucky star, so far as they themselves are concerned, but there is an ulterior result which must not be lost sight of.

It is a fact of common observation, that the children of the most highly cultured parents are few in number, and do not, as a rule, shine in life except by the borrowed light of their ancestry. They are too often small in size, deficient in physical vigor, of nervous organization, and either only medium or inferior in intellect.

Apply to these youth the training of the public school and you reap a crop of young men who seek relief from the lassitude of a worn-out nervous system in stimulants and narcotics. They are impulsive and emotional; brain action is irregular, and prolonged mental effort impossible; they are subject to alternating periods of excitement and depression by the most trivial circumstances. It is under these latter conditions that the habits of intemperance, so wide spread among the better classes, are often formed, which only serve to make the wrecks more complete. The evil is wrought much in this way. When the nerve cell is called into functional activity, either too frequently or for too long a period at one time, there follows a state of exhaustion, during which, if further demands are made, the responses become irregular and uncertain, finally ceasing altogether. This is nature's method of preserving the nervous organization from utter ruin; it means that a period of rest and recuperation is required which has not been received, though nevertheless essential. Allow this condition of exhaustion to supervene frequently and permanent loss of power results. Mental action above a very inferior plane cannot be carried on, and the individuals themselves, under the consciousness of such a fact, look about for some sort of relief. They find it, though a disastrous one, in stimulants and narcotics. Brandy, whiskey, chloral, opium and cannabis indica are the crutches upon which an already over-stimulated brain seeks to hobble through a career of intellectual activity for which it has become unfitted, and such is what many a young man is trying to do.

The other sex is in a condition but little superior; they are sufferers from neuralgia, headache, and a score of ailments of nervous origin. Hysterical, feeble and emotional, they gratify a morbid intellectual appetite by the sensational literature and drama of the period. Neurasthenia and spinal irritation are the fashionable complaints of the day, and the majority of women find no difficulty in complying with the fashion. We read of no such diseases in the older works on medicine; they are pre-eminently the fruits of modern methods of training.

Does it require any special inspiration to say what shall be the fate of a large percentage of men and women so illy fitted to take

up the duties and bear the shocks and disappointments of life?

These people have acquired what alienist physicians designate as the insane temperament. They are liable to caprices of thought and feeling, and although they may in general act calmly and rationally, yet now and then circumstances will surprise and overpower them, causing extravagant or eccentric actions, while the great and trying emergencies of life may upset the mental equilibrium entirely.

From over-taxation during the formative period of the brain, there is a tendency to independent and spasmodic action on the part of the different nervous centres. There is an acquired instability of nervous element, through which the mutual reaction of nerve cells does not take place properly, and harmony of function is replaced by irregular and erratic mentality. Such people occupy the border-land of insanity, and it is from their number that the rapid increase of lunatics in the States previously mentioned in this article, have in some part come. It is probably true, that could external conditions be controlled and shaped to the advantage of these impaired mental organizations, many might escape, who are now the psychological windfalls of society; but when unfavorable action without, conspires with an infirmity within, then the conditions of disorder are established, and a discord or lunatic is produced.

I have no doubt the advocates of the popular system of education will claim that the increase of insanity is due to an entirely different cause or set of causes, for the fact of such increase cannot be denied. Nor can it be gain-said that the percentage of insane people among the native born inhabitants is greatest in New England, nor that in this section Massachusetts and Connecticut, those States longest under the influence of the higher education, stand foremost upon the appalling record. Nor is it any excuse or palliation to claim that this would have taken place just the same without such influence, because the only justification for the existence of the system, was the assumption that the training afforded was replete in all the essentials of good citizenship and social well-being.

It was the endeavor in the early part of this paper to show by figures a failure in

both these particulars, and later to point out some of the disastrous results known by the alienist physician to have followed. Dr. Jarvis, in a pamphlet entitled *Relation of Education to Insanity*, (1872) says: "Out of 1741 cases, the causes of which are given, admitted into sixteen American asylums, 205 were attributed to excess of study."

Dr. Bucknill says: "Unquestionably, in England, at the present time, brain forcing and the crowding of an immense number of subjects into one examination are doing most serious mischief."

Another English physician speaking upon the subject, gives this opinion: "Too many hours daily study, and the knowledge of an approaching examination, when the system is developing and requiring an abundance of good air and exercise, easily accounts for pale and worn looks, frequent headache, disturbed sleep, night-mare and nervous fears. When the career of such students does not end in graduating in a lunatic asylum, they lose for years, possibly always, the elasticity and buoyancy of spirits essential to robust mental health."

Dr. Carriell, of the Central Illinois Asylum says in his last annual report, when touching upon the causes of insanity: "The effect of erroneous education undoubtedly has an influence in predisposing to mental unsoundness. Too early efforts at study, and too close application, overtaxing the faculties, are injurious in their tendencies and effects."

Dr. Stearns, of the Hartford Retreat, in speaking of the popular methods of instruction in our graded schools, thus sums up in a vigorous and truthful manner, the results of his observations and experience in an institution, the patients of which come largely from the better classes of society: "In our graded schools, pupils are parceled out in numbers ranging from fifty to sixty, and put in one room under the charge of one teacher. Now, doubtless, one or two out of every five of these fifty or sixty can press on with ease and health through all the studies which all are expected to master, but for the other three or four out of every five, there exists a large tendency toward confusion and imperfect knowledge, rather than vigor and strength of brain. In this respect, I believe the education of fifty years ago was better than that of to-day. The teacher had a less number of scholars, while a few subjects

were thoroughly mastered. A few books only were read, but what was studied and read was generally more thoroughly studied and understood. There were fewer confused and half understood lessons and theories. * * * They were not crammed and confused by dim memories of a vast multitude of names or facts which could by no possibility have any important bearing on their future lives or fortunes. Knowledge, to be of much practical value in life, must be clear and definite in the mind of its possessor. When half mastered, it tends rather to weaken and confuse than strengthen and invigorate."

Leaving aside the practical value in after life of the popular school training, we may truthfully say that it fails even in the purpose of mental discipline. The athlete who seeks muscular development does not do so by attacking impossibilities; he avoids the heavy weights confessedly beyond his strength, and exercises with those which he lifts with ease and can toss with precision. So likewise in intellectual training; the task which by moderate effort is thoroughly mastered gives an added power, not gained in fruitless, incompetent endeavor; it is the victory and not the defeat which gives strength and confidence to the growing mind.

The conclusion which we reach, therefore, is that the public school training has failed in affording power and vigor of mind or the least originality of thought. That it has worse than failed, in that it tends directly to the production of mental weakness and disease, I believe to be equally true; and in these conclusions I believe I am sustained by statistical reports, and the testimony and experience of gentlemen making a special study of psychological medicine.

If the remedy has not already been foreshadowed in these pages, it may be briefly formulated in these terms: Teach fewer branches in the public schools, and teach them thoroughly. Let the course of study include only those subjects which are of practical value to every child in the commonwealth. Such as have time, talent and strength may have special training if they like, in those ornamental branches which now overwork and confuse the young during their school life, and even prevent the acquirement of the very elements of useful

knowledge. A thorough elementary education is all that ought, in justice, to be provided at the public cost. If such were the case, we are of the honest opinion there would be fewer unproductive invalids, fewer young men and women trying to live by their wits instead of their hands, and finally, fewer mental wrecks to provide for in asylums at the public expense.

A Contribution to the Jurisprudence of Abortion.

BY JUDSON BRADLEY, M. D.

(Read before the Detroit Academy of Medicine.)

CAN tufts of the villi of the chorion be found in the uterus after abortion, at or before the third month of pregnancy, if the uterus has been completely emptied of ovum and deciduæ?

The question propounded above is one of great moment. Not only does it concern the medical man who may chance to make a post mortem on a subject that has died from the after-effects of abortion, but it may also concern the members of the legal fraternity who may be called upon to protect in a court of law the interest of a client, or to prosecute the suppositive law-breaker before a jury of his peers. It may also concern the learned jurist who may be called upon to lay down the law in a case brought against a person, who, under indictment for having offended that law, is put upon trial for the offense.

Some time since it was stated in one of our meetings that the remains of the villi of the chorion could be found in the walls of the uterus after an abortion had taken place. But let us see if that statement can be substantiated in all cases.

Before proceeding with the question directly, let us look again at the physiological processes by which the ovum of the human subject becomes implanted and retained in the uterus. The ovum having been impregnated is carried along the Fallopian tube to the uterus, where there has already been prepared for its reception a peculiar, soft, velvety condition of the mucous lining of that organ. This velvety lining receives the delicate ovum into its folds and prepares to furnish it the necessary nourishment to cause it to grow and develop into the embryo.

Whether the mucous membrane hypertrophies *en masse*, and surrounds the ovum to hold it more firmly in place, until nature can

supply the ovum with its own proper attachments, or whether only the epithelial layer of the mucous membrane rises—become partially separated, and then becomes hypertrophied so as to surround the ovum and hold it until it becomes attached to the uterus by nature's processes, learned observers do not agree, but all do agree that the ovum is in some sense surrounded by the mucous membrane of the uterus and retained. The immediate mucous surrounding of the ovum becomes the decidua reflexa, and is separate from the larger portion of the mucous membrane of the uterus by a sensible space, greater or less until the ovum expands sufficiently to cause a union of the two, *i. e.* of the decidua reflexa and the more external mucous membrane, which has been called the decidua vera.

Early in the development of the ovum small processes are thrown out from the surface of the ovum (now become the chorion) which dip into depressions in the decidua reflexa. These processes are hollow and very delicately thin, and as the ovum increases in size, they throw off branches and ramify more completely into the mucous membrane—the decidua reflexa. So that frequently they cannot be withdrawn without laceration. The particular office of these villi seems to be to supply the ovum with fluids for its early growth by endosmosis from the vascular membrane surrounding it. The villi become vascular later on in the course of the development of the ovum.

I have written this much to show *where* the villi are developed. I certainly do not wish to be understood as going fully into the development of the ovum, with its changes and sub-changes, its fissions and metamorphosis at all.

Now recurs the question, can any of the villi of the chorion be found in the uterus after abortion at or any time before the third month, provided, of course, that the uterus has been completely emptied of the ovum and the deciduæ?

To this question, I am satisfied that the answer must be unqualifiedly in the negative. Not but that sometimes the exfoliation of the deciduæ and their extrusion may be incomplete, for Dalton says, that it is possible to find shreds of the shaggy chorion in the uterus, left behind after abortion, in certain cases.

I present here, an ovum aborted at about the sixth or seventh week of pregnancy. As will be seen upon inspection, the villi nearly surround the ovum. This ovum was aborted almost painlessly, but after a little flooding of no serious moment, the decidua came away intact, except the rent through which the ovum was extruded. On the internal surface of the after-birth there may be found tufts of villi of the chorion. On the internal surface of the uterus, we ought not, and probably cannot find any vestiges of villi after the complete evacuation of an ovum and its decidua. What *should* be found—plainly enough—is the internal surface of the uterus denuded of its mucous membrane, the body of the uterus enlarged and many appearances which would render the probabilities of an abortion very great, but all falling very far short of that absolute demonstration which would exist if the villi could be found.

I have been thus explicit because text books are in a great measure silent on this subject, and while it would be easy to swear that a certain case had aborted, if, after an autopsy, the tuft of villi had been found on the other hand, if the tufts of villi had not been and could not be found, then the witness could only say, that by some means the interior of the uterus had been denuded of its lining, but whether from abortion or membranous dysmenorrhœa, or from fleshy mole, could not be positively stated.

No other condition except pregnancy exists in which villi of the chorion can be found, so that in a given case, where the uterus has been emptied of its contents, if the microscope reveals the villous tufts, then the case is clear, the diagnosis positive.

It has seemed to me that experts should pay more attention to the positive points in diagnosis. While collateral evidence, such as enlargement of the uterus, peculiar conditions of the ovaries, showing corpora lutea, etc., may be present, they may all be only sufficient to establish a probable case, and yet from a medico-legal point of view be nearly worthless.

My excuse then, Mr. President, for calling the attention of the Academy to this subject, is to urge those who may make autopsies on subjects dead from abortion, to apply the microscopic test and know if the villi are then present in the uterus.

A Case showing the Result of Injuries at the Base of the Brain.

A paper read before the Calhoun County Medical Association, at its last annual meeting, by the retiring President,

S. S. FRENCH, M. D., BATTLE CREEK, MICH.

IT has become customary for the President of this Society to deliver something in the nature of a valedictory before giving place to his successor.

My compliance with this custom is caused more by the desire that the custom shall be continued and strengthened by an unbroken series of precedents, than by a belief in the importance or interest of what I shall say.

The association was organized, in its present form, four years ago. J. H. Montgomery, who had practiced medicine in this county more years than any other of our number, and who, I think, is now the senior member of the profession in active practice in the county, was elected the first President.

There were fourteen charter members; eighteen physicians have since united with the association. Five active members have removed to other fields of labor. Two honorary members have succumbed to that adversary, with which our professional life is a continuous struggle, whose final victory we can only delay, not avert. Our original fourteen has increased to twenty-seven active members. We have also nine honorary members.

A review of the work of the four years will show that our time has been well employed. We have listened to fifty-six carefully prepared papers; to the thorough discussion, at each meeting, of an appointed subject, and to the report of many interesting cases. We have also had many instructive clinics.

All this cannot fail to be beneficial to each of us. The contact of minds brightens the intellect; comparison and discussion of experiences and theories enlarge our views. We learn to see the same subject from the different stand-points of different minds.

Recalling to mind these papers and discussions, naturally brings the remembrance of similar ones before the State and National Societies. I say, with pride, the comparison is not unfavorable to our smaller society.

This Society exerts, as it ought, a strong influence over professional ethics. Our fre-

quent meeting with a common object has increased our respect for each other; by so doing, made us more careful in our remarks about and criticism of each other. Little that is to be regretted has come to my knowledge. A few expressions I will repeat, believing the repetition will carry its own criticism; that bearing their expressions from the lips of another will reveal to the authors their impropriety, if not absurdity. One of these remarks was, "I came to this field, not because I am obliged to practice, but because I knew the great need of a first-class physician." Another, "I would not use that doctor, he is old-fogyish, does not read, is not up with the times." The speaker knew nothing of the extent of that doctor's library, or the amount of current literature he was receiving. Such remarks, and the boasting of greater skill, by reason of recent graduation, we view with leniency, because of our knowledge of the unbounded confidence of the recent graduate of all professions.

The young doctor will grow old; we hope he will not become *less* wise. We know he will have each year less and less of that overconfidence which borders on conceit, until he finally learns that all there is of medical knowledge is more than one man can acquire, even during a long life of study and experience.

I am proud of our County Society. I consider it an honor to have presided over an organization composed of members of my own profession, who show so much scientific acumen and ability; who are active in adding to the literature, zealous in upholding the honor and perpetuity of our noble profession.

I heartily thank you for honoring me by placing me in this position, and thank each of you for kindness and courtesy shown to me and for help given during my incumbency.

Before concluding, I wish to give the history and some reflections upon a case which has been the cause of much study and thought upon my part:

About the first of October, 1878, I was consulted by the patient, a man of fifty-eight years, of full habit, robust, five feet eleven inches in height, erect, well proportioned, weighing two hundred and ten pounds. He had not weighed less than two hundred for several years; was never confined to

his bed a day by sickness in his life; not addicted to the use of liquor; used tobacco moderately; had performed no manual labor for a number of years, but was not inactive; lymphatic temperament; slow in his motions—walk, strong; mentally not above mediocrity. He complained of pain in the back of his head and of dizziness.

Upon examination, I found a soft swelling one and one-half inches in length by three-fourths of an inch in width, situated at the lower part of the occiput, just to the right of the medial line, puffy and tender (caused, the patient said, by a blow received three days previous). The tongue was slightly coated, heat normal, pulse accelerated, full, seventy-eight, face somewhat flushed.

I prescribed a full dose U. S. compound cathartic pills, sinapisms to the nape of the neck, and advised entire rest, mental and physical.

The prescription was followed, but the patient continued about his usual business. Vertigo increased, but the acute pain diminished. After a few days I repeated the prescription and followed its effects with pot. iodide in five gr. doses, three times each day, hyd. chlor. mit. grs. ij, with soda bi-carb., each night.

Being called to see the patient, during the night of October 20, I found his pulse frequent, variable and intermittent, heat 100, tongue coated, bowels regular, urine normal. He had ridden several miles that day, and had experienced a severe attack of dizziness, the pain in the occipital region severe, not continuous but lancinating. I continued the treatment and added bromide of pot. 15 gr. doses, three times each day, and advised blisters applied to the neck.

The symptoms grew more urgent until the 9th of November, when I left town for a few days. While I was away the patient went to Ann Arbor and consulted Prof. Palmer, of the University. Prof. Palmer diagnosed the case as a slow inflammatory condition of the meninges of the brain at the base, and perhaps extending to the spinal cord.

In his communication to me he recommended iodide and bromide in combination, five grs. of the first, 15 grs. of the second, *ter in die*, with some of the more powerful of the mercurials, as biniodide, or corrosive

sublimate, three times each day; the use of more powerful counter-irritants, as the seton, or hot iron, and insisted upon perfect rest. This advice was followed in the main. The application of the counter-irritants was postponed, as the patient's business imperatively required his attention.

Notwithstanding this treatment, the vertigo increased; the lameness at the point of departure of the spinal cord from the medulla oblongata increased so much that when the head was moved the body was moved with it. The pulse became more irregular, the feet cold.

During the latter part of November, he began to have tremblings of a peculiar fibrous kind, as though produced by single fibres or single bundles of fibres. This became so severe and constant that early in December he became unable to write even his own signature. Before the close of this month, wakefulness increased, the sense of hearing in the right ear was partially lost; there was occasional double vision in the right eye; the sense of taste became imperfect; there was paresis or ataxia of the tongue. At times the tongue was drawn back into the throat so that articulation and deglutition became difficult. The tongue was at times swollen and covered with a brown coating.

The patient complained of a sensation of stricture at the lower end of the pharynx when in a recumbent position, and of a throbbing at the base of the brain when lying down or when the head rested against anything. There was occasional bloating of the face and bowels. All these manifestations continued through the months of December, 1878, and January, 1879, sometimes of greater, sometimes of less severity. The trembling continued to increase and became more general, a twitching or sudden contraction of the muscles of the back producing pain along the spinal cord; appetite generally good, at times more than normal. There was a constant coldness of the feet that could not be relieved by warm applications. The pulse would vary several times during the day from fifty to one hundred and sixty per minute.

After the first of January the food taken at nearly every meal was immediately ejected. There was no nausea, no warning, but a quick, forcible ejection. Blisters were ap-

plied to the back of the neck and antimonial sores produced along the spine. The general treatment was continued, varied occasionally by the use of some of the other nervines and anti-spasmodics.

Two or three times, when I found the patient in more than ordinary distress, I tried anodynes, as morphine, etc. They invariably caused an increase of the head symptoms.

During this time I received frequent letters of advice from Prof. Palmer. Dr. Meachem had charge of the case for a week; he treated him on the Hanemann plan, diagnosing the case as hyperemia or meningitis; the inflammation at or near the atlas.

In January, a friend of mine, Dr. R., of N. Y., examined the patient and advised a continuance of same treatment. Dr. Davis saw the patient frequently and occasionally watched with him.

In February, Dr. H. O. Hitchcock, of Kalamazoo, spent the greater part of a day with the patient and has visited him with me from time to time since. The patient had been confined to the house for some time when Dr. H. first saw him. The doctor advised me to continue the same treatment with the addition of ergot, so given that the patient would receive from twenty to thirty minims three times each day. Later, my old friend, Dr. S., of Western N. Y., also made a careful examination of the patient. His conclusions as to the nature of the difficulty and proper treatment were similar to my own.

As the spring advanced, the condition of the patient improved. Double vision ceased; hearing was in part restored; taste returned; the lancinating pains were less frequent and less severe, and he could better control his motions. The twitchings of the back continued; they were always more severe when there was less trouble in the head, and less severe when the pain and vertigo were the worst. In March, I tried the battery (Faradic). Its use increased the head symptoms.

When the weather became settled in May and June the patient was able to go about the yard and three times rode down town. In August, he went to the Sanitarium; spent nearly every day of that month there under the treatment of Drs. Kellogg and Fairfield. While there, physicians used electric and other baths with friction; the use of iodide and ergot was also continued. One day

early in September, disregarding the advice of his physicians, the patient went to Marshall to attend court. Attempted to go again the next day, but his strength failed before he reached the court room. On his return he was worse in nearly every particular. There was more trembling; more pain; more tenderness of the upper part of the spine amounting to hyperæsthesia. I gave him nervines and anti-spasmodics in large doses at different times, of different articles, as valerian, hyosciamus, belladonna, bromide of pot., also hydrate of chloral in large and repeated doses, but could not succeed in reducing the twitchings or induce sleep.

He continued in this state during the winter. In the spring (1880) he began to improve; retained his food, increased in flesh, became able to write with some effort, the twitchings were less frequent, pulse more regular and less intermittent. The patient felt so much better that he expressed hopes of a speedy recovery.

The last day of June he was taken to jail. He kept up, under excitement, for a few days, although the jar of riding caused him to have a more severe paroxysm than he had experienced since the first winter.

He was placed under the care of Dr. Montgomery, of Marshall, and for a short time was under the care of Dr. Joy. I also saw him frequently.

The above mentioned physicians gave him anodynes and anti-spasmodics of various kinds, with some other medicines, without any marked result. His paroxysms grew steadily worse, became somewhat regular, recurring at about the same time each day. Quinine was given for several days, and morphine was administered hypodermically with unfavorable results. On the seventh of August there was a more severe paroxysm, of an apoplectic nature, I judge, as his mouth was closed and remains so to the present day, with the exception of a slight movement a few times when much under the influence of anæsthetics. The Marshall doctors gave chloroform and advised its use whenever there was a paroxysm. The patient lost at this time the power of speech, which has never returned. When most quiet he can articulate in a whisper a few words which can sometimes be understood by those most familiar with him.

After the seventh of August there were frequent and wide variations of the pulse. At times becoming so frequent that it is impossible to count, and so feeble as not to be distinguishable. There was also hyperæsthesia and heat at nape of neck, and coldness of the lower extremities. The paroxysms continued, he having from eight to ten between the hours of eight and ten o'clock, A. M., and a repetition of the same during the night.

These paroxysms are partially controlled by the free use of chloroform.

About the first of September, the ejection of food immediately after eating returned; no nausea; appetite all the time abnormal; a constant craving for food. Immediately after ejecting his food he would desire more.

Early in October, he began to suffer from pain in the right sciatic nerve, accompanied with lameness. The patient returned to his home October 25th. He was much emaciated; notwithstanding the abnormal condition of his appetite, he had lost fifty or sixty pounds while in Marshall. The paroxysms continued to increase in number. As soon as the 12th of November he had them at both nine o'clock in the morning and several at five o'clock in the afternoon. Since his return, the application of dry heat slightly relieves the pain and shortens the duration of the paroxysms. Their approach is indicated by a blur before the eyes; severe pain behind the ears, extending to the center of the chest; a sense of constriction of the pharynx; a drawing back of the tongue. The pain becomes extreme. There are violent contortions of the body, cramps in the feet and hands, and twitchings of the muscles of the back. How long they would continue if chloroform was not used, I cannot tell. There is constant coldness of the feet and chest; the tongue swollen most of the time. The bowels bloat at some time each day, changing from normal size to nearly that of pregnant women at full time; the bowels return in an hour or two to normal size. His pulse most of the time frequent, does not at any time become as slow, at this time varying two or more times a day from about sixty to one hundred and forty or sixty; are irregular, feeble and part of time intermittent. The pain and lameness has extended to the left hip; it is with difficulty that he can walk at all. As his food has been prepared with greater care and given to him

in the best form since his return, he has retained some portion of it; more is assimilated, and he has gained a little in flesh, still all the other symptoms are becoming more and more urgent. His mind is becoming feeble, and he is evidently surely approaching that termination so fully described in such cases by Hammond, Bartholow and others.

In considering this case, the first question suggested is, what causes the various manifestations noted? Are they caused by functional disturbances, or by a diseased condition of some organ or set of organs?

Before attempting to answer these questions or to discuss the pathology of the case, permit me to give a brief description of that portion of the organism to which my mind has been directed.

A small portion of medullary substance, with membranes and vessels peculiar to the brain, situated at the top of the spinal cord and within the cranium, called by some the "bulb of the spinal marrow," "vital knot," "medulla oblongata," etc., occupies but a small space at the base of the brain. It is of irregular shape, each prominence, curve, fissure, etc., has been given by different physiologists and anatomists a name, as corpora geniculata, corpora pyramidalia, corpora olivaria, pons varolii, crura cerebri, crura cerebelli, corpora restiforme, and many more, which you all remember.

From this knot, or its immediate surroundings, all the cranial nerves have their origin. The first olfactory, from the fissure of Sylvius, proceeding posteriorly; the second, optic, from corpora geniculata, or outer part of optic-thalami; the third, motores oculorum, from the crura cerebri; fourth, pathetic, from the valve of Vieussens; fifth, the trigeminum, from corpora pyramidalia and pons varolii; sixth, or abducentes, near same place; seventh, facial or portio-dura and auditory or portio-mollis, the first from corpora restiforme and corpora olivaria, the other from the calamus scriptorius on floor of fourth ventricle; eighth, glosso-pharyngeal, pneumo-gastric, vagus or par vagum and spinal accessory, the first from a groove between corpora olivaria and corpora restiforme, the second from same groove farther down, the spinal accessory from spinal cord in cervical region as low as sixth vertebra, passes up and into the cranium; ninth, lingual, same

origin as eighth. According to the above, there are nine pairs of cranial nerves. Some authors divide them differently and make twelve pairs. The distribution of the above nerves (as their names imply, to the eighth pair, except one branch of the fifth pair, the gustatory) is to the organs above the mouth and to the superficial parts, while the glosso-pharyngeal and gustatory are distributed to the tongue.

The hypo-glossal, pneumo-gastric, spinal accessory, glosso-pharyngeal, each furnish anastomosing branches, filaments of which are motor, thus making them substantially afferent and efferent nerves.

The plexus formed by the above anastomosis is situated at the base of the brain, is called the respiratory plexus, and injuries to it or disease of or near it affect respiration.

Its peculiar position makes the medulla oblongata the connecting link between all parts of medullary matter. The crura cerebri connect it with the larger brain (cerebrum); the crura cerebelli with the lesser brain (cerebellum); the pons varolii connects the hemispheres, and at its lower extremity, at the foramen magnum, it becomes the spinal cord.

All the cranial nerves arising from this substance makes the medulla oblongata the most important of brain substance to animal life, hence it is called by some "the life knot."

It is said, and recent experiments have proven, that some animals will live when deprived of both the cerebrum and the cerebellum.

The same experiments have shown, also, that its stimuli stimulate or produce the feeling called a desire for food, or hunger. It prompts the newly born in its first actions, consequently the first manifestations are almost invariably the seeking after food.

This part, also, if injured, causes greater disturbance in proportion to the amount of injury than any other. So, also, with disease; even slight disease in this part is always dangerous, and sooner or later in nearly every case proves fatal.

All authors who speak of the subject say that the symptoms or manifestations will be nearly the same, whether the disease be idiopathic or traumatic, situated in either of the membranes or between either, as between the cranium and the dura mater, between

the dura mater and the arachnoid membrane, between the arachnoid membrane and the pia mater, between the pia mater and medullary substance, or situated in the medullary substance.

We have to judge the case, whether sthenic or asthenic, by general principles, as the pulse, heat, pain, etc.; whether hyperemic or anemic by similar means. The exact location can only be determined by watching the effect at the part supplied by any particular nerve and tracing the same to its origin, looking carefully to those nerves with which it anastomoses most freely. The cranial nerves originate in such close proximity that disease of necessity produces its effect at their peripheral to some extent, making an accurate diagnosis, as to particular location, extremely difficult.

There are several diseases of the medulla oblongata, the manifestations of which are so nearly alike, and I may also say the results are so nearly the same, that it is difficult to diagnose exactly during life—as hyperemia, inflammation of either the substance as myelitis or the membranes as meningitis, tumors, thrombosis, embolism, abscess, tubercular deposits, hemorrhages, sclerotic diseases, etc.

The manifestations of some other diseases assimilate in some measure those of the diseases named above: paralysis agitans, hysteria, hysterio-epilepsy of Charcot or hysteria major, epilepsy gravior, le grand mal or le petit mal of the French, etc.

Carefully comparing the symptoms or manifestations in the case related with those of the above named diseases, I find that the case cannot be hysteria, for the following reasons:

The patient was a strong man. Hysteria is a disease peculiar to females, being very rarely found in man. The patient was never of a nervous or irritable temperament, never having had disorder of the sensory-motor or vaso-motor systems, a condition necessary to the development of hysteria. His age, also—fifty-eight years—was far past the age of hysterics. No intolerance of light or acuteness of hearing, no perversion of taste were manifested, while these peculiarities are almost always found in a case of hysteria. On the contrary, it will be remembered that in my case there was dimness of vision, at times double sight; in its more inflammatory stage, deafness, an almost entire loss of taste,

not a variable appetite, but a constant craving for food, hunger never being satisfied.

The trembling during the active stage was unlike that of hysteria, as it was continuous and confined mostly to one side. There were until lately no well marked convulsions or paroxysms, nor ever any prodromal symptoms, as laughing, crying, globus hystericus, as is usual in hysteria. No pain in left side, nor profuse discharge of limpid urine.

The latter symptoms have none of them appeared, although the paroxysms became more distinct. There has never been any stupor, marked exhaustion or sleepiness at the passing off of the paroxysms, as in hysteria; on the contrary, there has been constant wakefulness, notwithstanding the nervines, anti-spasmodics and anodynes which have been administered. The patient never sleeps during the day, rarely exceeds more than two or three hours during the night, this sleep being in the latter part of the night, while many nights he does not sleep at all. The case described cannot be epilepsy, or what some call hysteria major or epilepsy proper, because in either of these diseases the convulsions come on suddenly, usually, and whether preceded by prodromal symptoms or not the patient falls wherever he may chance to be, down stairs, into the fire or against any article that may be in his way, and becomes immediately unconscious. Sensibility, mobility, perceptions, the special senses are all abolished.

Some writer says: "loss of consciousness is a central fact, and without it there can be no epilepsy." There is paleness, soon followed by blueness of the face. The clonic spasms which follow the tonic or tetanic, commence in the face, which is violently agitated and drawn into many shapes; there is frothing at the mouth; the tongue and lips are frequently bitten, and all is followed by a deep sleep, almost coma, frequently lasting hours. None of the above have been symptoms in the case being described, except the clonic spasms, and they differ from those of epilepsy, as the patient never has any twitchings of the muscles of the face, and the twitchings of those of the back and limbs are irregular. The tremblings more by single fibre than by whole muscles.

In hysterio epilepsy, the symptoms are not so thoroughly marked, but are of a similar character. In all the above diseases, there

must be convulsions, with loss of consciousness, followed by stupor and sleep, usually stertorous breathing; none of which are among the manifestations of my case.

It cannot be paralysis agitans, for in that disease the trembling can be arrested at will. It is years in coming on, beginning at some of the extremities, as a thumb or finger; gradually extending, going to the other side, to a toe or foot; after a time deformities occur, as in rheumatism. The trembling ceases when the patient is at rest, and is not necessarily attended with pain or tenderness at any point. None of these manifestations, it will be readily seen, appear in my case.

I know of no other functional disease which in any way produces symptoms or manifestations like those in the case described, or that can be confounded with it.

Clinical Lecture.

BY HAL C. WYMAN, M. D.,

Professor Physiology, Detroit Medical College.

(Reported by Clarence H. Leonard, Class of '82.)

GENTLEMEN:

I DESIRE to call your attention to several cases this morning. The first is this man, 41 years of age; works in a boiler shop, and previous to this time has not known sickness. You will always find such patients exceedingly good subjects for examination, because, not having been under treatment before, they have not received that special training that so many people have, and which enables them to tell you so readily that they have all the symptoms which they have learned to know you desire to discover to suit particular ideas of diagnosis. You will generally find that such patients as this one, who have not complained of previous illness, have good reasons for consulting a physician, and an examination is pretty sure to show some existing trouble. This man arose as usual Thursday morning, and in the course of half an hour experienced sharp, shooting pains through the sides and stomach—pains so severe in their character that he was compelled to go back to bed. His wife applied poultices to the painful parts, and succeeded in affording him temporary relief. He remained in the house yesterday, feeling better, but this morning is worse. He complains now of pain in the sides, particularly the left side, in the pit of the stomach, back of the neck, and across the shoulders, and of thirst.

He experiences no pain when walking, but when he coughs the pain is considerably increased. Pains of this character may be indicative of various lesions, malaria, or simply neuralgia or rheumatism.

We will now examine his lungs, and here I will say that I rarely ask a patient to disrobe, but watch carefully the muscular mechanism of the respiratory movements, notice the elevation of the ribs and expansion of the chest, and associating these movements with the sound heard on applying my ear to the chest, judge of the condition of these organs. I hear the air pass into every part of the chest while the ribs are moved upward and outward, and when these movements are in the opposite direction, and the chest is collapsed, I hear nothing. Stillness prevails quite uniformly until the chest dilates, when the normal respiratory murmur is again heard. This is to the accustomed ear and touch sufficient to justify the opinion that the man's illness is not due to impaired function of lungs or pleura.

The intermittent character of the pain the man suffers is a peculiar symptom. It enables us to decide upon the diagnosis of malarial neuralgia. You see in every other respect his history is good. We will treat him with quinine in five grain doses, repeated once in three hours, until thirty grains are taken.

CASE II.—This young man came into the clinic ten days ago, and told us that about two months ago he had intercourse, and six weeks afterwards noticed a sore upon his penis, of which there is no trace now, except a little black spot, which may or may not be the remains of a venereal ulcer. He did nothing for it in the way of treatment. It is possible to have such a sore developed as the result of friction against the pantaloons incidental to walking, or as the result of injury to the prepuce. This case, however, is most probably one of venereal trouble—chancre, and we may find mucous patches, and other symptoms of syphilis in a few months. We find now that the glands about Poupart's ligament on both sides are enlarged.

The patient is 20 years old, single, and has been learning the trade of a cigar-maker. His immorality has cost him the loss of his situation, and this, and the mental anxiety which he has experienced as to the issue of

his disease, has had the effect of causing much general prostration. He lost his appetite, was unable to sleep well, and became emaciated. We have been treating the patient by the application of iodine externally, and by giving tincture of ferri chloridi, gttss. xx, and beefsteak three times a day. Under this treatment the bubo is diminishing and the general health of the patient is rapidly improving. We have given no specific treatment. There is a wide difference of opinion in the profession in regard to the treatment of syphilis. Some believe in the early exhibition of mercury, while others treat the chancre locally and wait until the appearance of secondary symptoms before beginning the use of mercury. The good results in this case are due to the use of good diet, good air and tonics.

CASE III.—Dyspepsia. The patient is a Frenchman, about 40 years of age, and was formerly a laborer in a saw and grist mill, where he inhaled considerable dust. He has since become a grocer, believing that business to be healthier. He first experienced a loss of appetite, would throw up all fatty substances, and had great difficulty in retaining food at all. He would have occasional attacks of jaundice, showing that the catarrhal disease of stomach and duodenum had extended to the bile ducts. His tongue had that peculiar pasty, white color, indicative of deranged digestion. He frequently had severe pain in the pit of the stomach, especially after eating, and to obtain relief, has been in the habit of rubbing liniments upon the epigastrium. In this way he got altogether too well acquainted with the anatomy of the region, and became especially familiar with the pulsation of the abdominal aorta, which his superstitious mind conjured into the writhings of reptiles, so that we had to take some measures to divert his attention and give rest to his understanding. This small loop of silk seton embracing about three-fourths of an inch of integument over this painful epigastrium, is the instrument for correcting this disordered imagination. He is directed to turn it quickly after each meal, and then take a mixture containing ten grains of pepsin and five drops of muriatic acid. If the seton is maintained long enough the dressing of it will tend to keep fresh in the mind the directions he has been given, and to divert his mind from the pursuit of ana-

tomical research and the horrible imaginations which torture many dyspeptics.

The patient was in the habit of taking a glass of gin every morning, under the delusion that it was a good thing for his health, and in this way has materially assisted, if not caused the derangement of his digestive functions. We stopped the gin, regulated the diet, telling him to eat for breakfast a certain quantity of rare beef, a soft boiled egg, slice of dry bread, and to drink a cup of barley tea; for dinner, beef, baked potato, and to drink barley tea again in definite quantity; for supper, a cup of old fashioned mush and milk. That diet has not distressed him. It has made and maintained his bowels in a natural condition. He thinks himself fully recovered. Previous to coming here he consulted several good physicians and a number of eminent quacks, and has had pepsin, lacto-pepsin, etc., administered to him *ad nauseam*, but without avail. The reason of failure heretofore, was not the fault of the medicine taken, but because the patient persisted in the excessive use of tobacco and the abominable use of gin. In order to do him any good it was necessary to make some impression on his mind, through which he would obey our injunctions, and this we have succeeded in doing by the use of the seton, and the stress and emphasis laid upon the dietary and hygiene.

CASE IV.—For our next patient we have this old man, a German, who complains of pain in the back, above and below, numbness of the limbs, a sense of heat at the epigastrium, of stiffness and soreness generally, and of pain in almost every part of his body. We cannot undertake to comprehend the significance of all these pains during this hour. You notice that his gait is all right, and he has no difficulty in walking when his eyes are shut, which would indicate that his powers of co-ordination are good. The enthusiastic detail with which he enters into a description of his pains and ills, leads us to suspect that his case is an excellent one of chronic grumbling. You will meet many such cases in practice, and will be disposed to treat them lightly, and as matters of no consequence. But you should never make up your mind as to whether there is anything the matter with your patient until you have made a thorough examination; for these symptoms may be indicative of grave disease.

On cross-examination we find his history quite different from that first described. He suffers little except when obliged to work. We find lungs, heart and digestive organs in apparently normal condition. We will make a careful physical examination along the vertebral column. He winces under firm pressure over the spinous process of the fourth lumbar vertebra, a symptom, which, taken with certain points in the history, may indicate Potts' disease of the spine. We will advise the use of a placebo, and in the meantime watch for changes to be brought out and explained at our next clinic.

Reports of Societies.

Michigan State Board of Health.

THE regular quarterly meeting of this Board was held at Lansing, Tuesday, April 12, the following members being present: Rev. D. C. Jakes, of Pontiac; Henry F. Lyster, M. D., of Detroit; Arthur Hazlewood, M. D., of Grand Rapids; and Henry B. Baker, M. D., Secretary. Dr. Lyster was elected President *pro tem*.

A letter from Prof. Kedzie, president of the board, announced his decision to decline the re-appointment as member of the board, for the reason that his duties as professor at the Agricultural College were such as, in the opinion of members of the board of agriculture, would prevent his giving that attention to the work of the board of health which he had heretofore done. His communication outlined the great progress in public health measures in this State since the organization of the State Board of Health, eight years ago. He saw with pride that nearly every city, village, and township in the State now has its board of health and health officer. Kerosene explosions, so common eight years ago, have forever been banished. Everywhere in the State there is evidence of an advance in the stamping out of infectious diseases. The ventilation of churches, school houses, and dwellings now receive an attention never known before. The water in our wells, the drainage of farms, and the sewerage of houses have all been brought into prominence by the labors of the board. In this work the board has been greatly assisted by the public press, but the press itself has been greatly stimulated by the work of the board. In short there has been a general advance along the whole line, but we have

kept such even step in this advance that we only become aware of our changed position by the comparison with the landmarks of eight years ago. Last, but not least, among the agencies set in motion for the public health, he noticed the sanitary conventions for discussion with the people of all matters relating to their physical well-being. He believes they were fraught with inestimable good to the people of our State. The forces which are thus set in motion are not temporary in their influence, but will flow on in a stream of blessings to the end of time. The information gathered by the board needs to be scattered broadcast among the people. New and original investigations into the nature of contagious diseases, and the means for arresting them, need to be undertaken and pushed forward by the board. The information gathered will be of small benefit if imparted to only a few. The State cannot afford to hide this light under a bushel.

In bidding farewell to the State Board of Health, Dr. Kedzie gave the assurance that he did so with the kindest feelings towards all its members, and with an earnest wish for its highest prosperity and usefulness.

Resolutions were passed expressing extreme regret at the necessity which compelled Dr. Kedzie to decline to serve longer with the board; also, expressing the high appreciation of the board for the eminent labors of Prof. Kedzie in the interests of the public health of the State. The election of his successor as president was postponed until the next meeting of the board.

THE FILTH OF OUR CITIES.

The Secretary presented a communication from C. H. Voute, giving statistics of the filth removed from privies and cesspools in various places in the State, by means of the odorless excavating apparatus. During the time—about a year—the number of tons removed, is, approximately, as follows: East Saginaw, 850; Bay City, 580; Lansing, 93; Charlotte, 61; Jackson, 151; Ionia, 78; Flint, 118; Battle Creek, 60; Kalamazoo, 258; in the State about 2,300 tons, or 15,000 barrels, and of that amount but 2,000 barrels could be pumped out, the remainder being removed by the "pitting" process, showing that the liquid portion had mostly drained off into the soil, which must be much saturated with filth, and as a consequence many wells must be contaminated.

OIL INSPECTION.

Communications had been received from different parts of the State, stating that it was customary for deputy oil inspectors to inspect a few barrels of oil from a car-load and brand as "approved" and collect pay for inspecting the whole car-load. One of the statements was that the inspector did not test every barrel even when his test showed at least three different grades of oil in the car-load. The questions were, whether this was an honest fulfillment of the law, and whether the public safety is thus conserved. The secretary was directed to take action for ascertaining.

SICKNESS CAUSED BY PUTRID MEAT.

A letter was presented from John Mulvany, M. D., surgeon in the British Navy, detailing the effects of food rendered unwholesome through putrefactive taint. All of the crew of a large merchant vessel that put into the Falkland Islands, who ate of pork opened on a certain day, became ill, and the illness continued until the ship was disabled, and medical assistance was sought for in the Falkland Islands. There it was found that not only the pork, but the beef was bad, and the meat was condemned by a board of surveying officers. Seven of the afflicted died, and *post mortem* examination revealed immense effusion in the pericardium, a stench from the brain and congestion at the point of the calamus scriptorius in the fourth ventricle, with congestion of the jejunum and ileum. During life the chief symptoms were paralysis of the hands and feet, and agonizing pains in the toes; uncontrollable sleeplessness, loose bowels, stench from the skin, etc. Symptoms entirely *sui generis*.

The Board requested Dr. Mulvany to present a complete account of the sickness.

DISEASES OF ANIMALS.

A letter was presented from A. J. Murray, U. S. Secretary of the State Cattle Commission, relative to the desirability of collecting statistics of death from contagious diseases of animals in all parts of the State. This work might properly have been done by the State Cattle Commission, if it had any funds, but a bill granting them an appropriation of \$500, which was passed by the senate was defeated in the house of the present legislature.

Letters were also presented relative to glanders in Clinton and Shiawassee counties.

SANITARY CONVENTIONS.

Invitations to hold sanitary conventions during the coming winter, were accepted from Coldwater and Ann Arbor.

DETROIT BOARD OF HEALTH.

Dr. Lyster, chairman of the special committee of the Board, to devise a plan for a Board of Health for the city of Detroit, reported that he had, in consultation with the City Attorney and other citizens, drawn up a bill providing a practical and a scientific Board of Health for that city, and the bill was now before the legislature.

SANITARY SCIENCE EXAMINATIONS.

The annual examination of applicants in sanitary science will be held Tuesday, July 12, 1881; it was voted that the examination should be written, and that each member should submit ten questions not heretofore asked, and on subjects connected with their work as regular committees. Candidates successfully passing the examination will receive certificates that they are qualified to act as health officers in any city, village, or township in the State.

CONTAGIOUS DISEASES.

It was decided to print revised editions of the documents on the restriction and prevention of each of these diseases, diphtheria, scarlet fever, and small pox. Arrangements were also made for the translation of these documents into the Holland and German languages.

"WINTER CHOLERA."

The Secretary reported the prevalence of a peculiar type of diarrhœa in some portions of the State during the past winter. The fact of its greater prevalence in the southern portion of the State, and that cases have been reported from two State institutions and from towns in the northern part of the State, dependent upon Chicago and southern Michigan for their food supplies, might indicate a connection between the sickness and the use of oleomargarine, butterine, products of diseased pork, or meat, or other food.

The next regular meeting of the Board will be held on Tuesday, July 12, 1881.

Detroit Academy of Medicine.

February 22, 1881.

Dr. D. Inglis read a paper on abscess of the liver.

Dr. Chapoton recollected something he had read of hepatic troubles in Japan. The

symptoms mentioned in Dr. Inglis' paper were recognized in that country as pathognomonic of abscess of the liver. One surgeon was in the habit of operating by free incision and lost every case, until he adopted the antiseptic precautions of Lister. Since that time he has saved every case.

Dr. Dowlman thought that the cause of rapid pulse in Dr. Inglis' case, towards its close, was the debility of the patient.

Dr. Connor thought that inexplicable cerebral symptoms may call for an investigation of the condition of the liver, and cited the case of Dr. E. S. Gaillard, formerly of Louisville, Ky., now of New York, and thought the aspirator might be used without danger of letting the pus into the peritoneal cavity.

Dr. Spaulding asked if jaundice was present in Dr. Inglis' case.

Dr. Inglis—There was not jaundice to any extent.

Dr. Hawes mentioned a case that had been under the treatment of Dr. Hammond.

Dr. Hawes exhibited an ankylosed knee joint, taken from a person who died from Bright's disease of the kidneys, but who had been for years the unfortunate sufferer from arthritis deformans. Some six or seven years ago the patient had the adhesions of the knee joints broken up, but the pain was more than human endurance could stand. To keep up the motions, therefore, was beyond realization. This patient had become so fixed in regard to motion that at death she could only move one arm and hand very slightly. The force exerted by two men could not break up the adhesions of the hip joints at the post-mortem, while the arm broke readily in the shaft by just raising it.

PREVAILING DISEASES.

Dr. Chapoton had seen diphtheria.

Dr. Cleland reported influenza and rheumatism prevalent in his practice.

Dr. Bradley had seen rheumatic influenza, neuralgia and pneumonia; had heard of some scarlatina, but had not seen any cases.

Dr. Robertson had seen some cases of liver troubles, with high temperature, which yielded to calomel and salines; had pneumonia following one case.

Dr. Inglis had seen erysipelas, also gastric catarrh, followed by phlegmasia dolens in a non-puerperal woman. There was not any uterine trouble.

Dr. Spaulding asked if it was a physician's

duty to stop all obstetric practice if he attended a case of puerperal fever arising from taking cold. The doctor did not get a decided answer.

Dr. Spaulding had seen a case also of purpura hemorrhagica; patient died from suffocation caused by hemorrhage into the walls of the glottis or larynx.

Academy adjourned.

JUDSON BRADLEY, M. D.,
Secretary pro tem.

March 8, 1881.

Dr. Noyes—The new mydriatic which I have here, discovered by Prof. Ladenburg, of Keil, first noticed in the *American Journal of Medical Sciences* for July, 1880, promises to be of great value in ophthalmic practice. Prof. Ladenburg, from his experiments, has obtained several alkaloids from atropine and its derivatives. Those obtained from atropine he calls tropines. Homatropine is prepared by the union of tropine and amygdalic acid. New salts form in firm, transparent, needle-like crystals, which readily dissolve in water, making a clear and colorless solution not liable to spoil, and is said to be less dangerous in its toxic effects than atropia. Its effect upon the eye in dilating the pupil and suspending the power of accommodation by paralyzing the ciliary muscle is exactly that of a solution of sulphate of atropia; but the two mydriatics have a remarkable difference in their action, inasmuch as the effect of homatropine subsides in twenty-four hours, while an equally strong solution of sulphate of atropia lasts many days. This, it will be at once seen, is an important consideration in conducting an examination necessary to determine accurately the quality and quantity of the error of refraction in ametropia in asthenopic troubles. Observations already made go to establish the peculiar merit by which homatropine distinguishes itself from atropia. Both are equally prompt in dilating the pupil, and suspending the power of accommodation; but it requires, as we know, almost two weeks for the eye to recover from the effects of a strong solution (5 gr. to $\frac{3}{4}$ i) of sulphate of atropia, while the effect of homatropine of equal and even much greater strength subsides entirely in twenty-four hours. We have found it also less irritating to the conjunctiva. Homatropine will be employed, therefore, in lieu of atropine sulph. whenever we desire to dilate the pupil tem-

porarily, for the purpose of ophthalmoscopic examinations, or whenever we wish to suspend the accommodation in testing the eye for certain anomalies of refraction. In treating iritis, it will not take the place of atropia.

Dr. Connor—The results obtained from the use of the remedy by different observers show that it is a remedy of great value.

Dr. Noyes—Homatropine acts precisely as does atropia, with the advantage over atropia, that within twenty-four hours after its use, the pupil becomes normal in size. Patients are not always willing to have their pupils dilated with atropia, because of the length of time required for the pupil to resume its normal size. Of a solution of homatropine, gr. i to $\frac{3}{4}$ i, two drops produced complete dilatation of the pupil in thirty minutes. Homatropine costs \$1.25 per grain.

Dr. Bradley—Homatropine is said to produce no constitutional effect as does belladonna. It is said to be absolutely non-poisonous. Duboisin was said to be non-poisonous also, but this was not true.

Dr. Connor—It seems strange that homatropine should produce the same effect upon the eye as atropia without producing similar constitutional effects. There may be something in the idiosyncrasy of the patient—as we often find the full effect of atropia upon a patient produced with a solution of gr. i to $\frac{3}{4}$ i, while other patients will require solutions of gr. v to $\frac{3}{4}$ i to produce the same effect.

PREVAILING DISEASES.

Dr. Bradley had seen some cases of bronchitis and tonsillitis.

Dr. Connor—I have met with the usual increase of catarrhal and suppurative inflammation of the middle ear that March brings. I am not able to see why, as March begins, these troubles increase, but that they do is a fact, and they continue until the month of May. I think they are more severe this year than usual.

Dr. Flintermann reported several cases of puerperal fever occurring among the Germans, and carried from house to house by midwives.

Dr. Hawes wanted an expression of the members present regarding the paralyzing effect of *com. syp. scillæ* upon the stomach. He had used it in a case of capillary bron-

chitis to produce vomiting, but it utterly failed, and seemed to produce paralysis of the stomach instead.

Dr. Bradley—It is well known that antimony will paralyze the heart. Infants are very susceptible to its influence. I have seen children brought to death's door from the administration of small doses when given without the advice of a physician.

Dr. Noyes—There are many cases in which the remedy will not produce vomiting. I do not think it ought to be used at all.

Dr. Shurly—When there is high arterial tension, is antimony any more dangerous than other depressants?

Dr. Flintermann—I saw a child only four weeks old, to whom, by mistake, was given ten drops of tinct. *veratrum viride*. The child's mother was sick with puerperal fever, and the medicine was left for her. The tinct. of *veratrum* was given to the child instead of *syp. rhei.*, and as the former was combined with *syp.* of sugar, the father, who wanted to give the *syp. rhei.*, took the bottle filled with *syp.* and *veratrum*. When I saw the child the utmost dyspnoea existed. The skin was cold and wet, respiration very imperfect. The pulse hardly to be felt, and very slow. The temperature was not taken. As the child was a very weak and delicate one, I never expected it would recover. So I gave to the parents the poorest prognosis. I ordered the remedies appropriate for such occasions: whiskey, carb. ammonia, sinapisms, etc. In the afternoon, at four o'clock, six hours after my first visit, I had the pleasure of pronouncing the child out of danger, gaining from this day in every respect, and being perfectly cured of a severe bronchitis that she had been suffering from since her birth. I do not report this case with the intention of recommending the use of tinct. *verat. viride* in bronchial diseases of infants. I am opposed to administering such powerful remedies in early life; but to show to what an extent some remedies can be given without danger; and I was glad to see an opinion of an eminent author, Prof. Burke, who says, regarding *verat. viride*, that "the collapse sometimes observed after the administration of *verat. viride*, in large doses, appears dangerous; but an apparently dangerous collapse has never terminated disastrously." The appearance of one who has taken large doses of *verat.*

viride, is almost precisely like that produced by tobacco. I have often seen this, but now when I do, it causes no alarm, as I am sure the effects will soon pass off.

A. E. CARRIER, M.D., Sec'y.

The Detroit Lancet.

LEARTUS CONNOR, A. M., M. D., EDITOR.

Rights of Public Teachers to the Material of Their Lectures.

A CASE of much general interest has just been decided by the Supreme Court of the State of New York. The facts briefly are as follows: Dr. Darling, professor of anatomy in the University of New York, has for years been accustomed to have an assistant, before the hour of his lecture, place upon the blackboard certain tables and diagrams, which he had found useful in the teaching of anatomy. This work was done for some time by Leo T. Meyer, a medical student, now a graduate. Dr. A. L. Ranney is Prof. Darling's assistant in teaching anatomy. In 1879, Dr. Darling and Dr. Ranney sold to the Putnams, medical publishers, the right to publish the substance of Dr. Darling's lectures, under the name of "The Essentials of Anatomy." About the same time that this was issued, Meyer published a work called "Meyer's Guide to the Study of Anatomy." This was avowedly taken from Dr. Darling's lectures, and its claim for patronage rested solely on Dr. Darling's reputation as a teacher of anatomy. Its author claimed that Prof. Darling gave him permission to print the tables, diagrams, etc. The Putnams applied for an injunction to prevent Meyer from selling his work, on the ground that they had purchased from Dr. Darling the sole right to publish his lectures on anatomy. Recently, the Courts have granted this injunction, so that hereafter Meyer can only sell his book to the medical students of the Medical Department University of New York, and on the grounds of said college building. This permission was given on the ground that Dr. Darling had given to Meyer permission to print and sell to Darling's classes the synopsis of his lectures.

The Court held that "mere permission to print, without permission to publish, does not divest the author of his property rights."

"Lectures and plays are not, by their public delivery or performance in the presence of all who choose to attend, so dedicated to the public that they can be printed and published without the author's permission. It does not give to the hearer any title to the manuscript or a copy of it, or the right to use a copy. The manuscript and the right of the author therein are still within the protection of the law, the same as if they had never been communicated to the public in any form."

Again, "The right of an author before publication we may take to be unquestioned, and we may even assume that it has, when accurately defined, never been denied. He has an undisputed right to his manuscript; he may withhold it or may communicate it, and, communicating it, he may limit the number of persons to whom it is imparted, and impose such limitations as he pleases upon their use of it. The fulfillment of the annexed conditions he may proceed to enforce, and for their breach he may claim compensation." Again, "If an author chooses to impart his manuscript to others without general publication, he has all the rights for disposing of it incident to personality. He may make an assignment, either absolutely or qualifiedly in any degree. He may lend or let or give or sell any copy of his composition, with or without liberty to transcribe, and if with liberty to transcribe, he may fix the number of transcriptions which he permits."

In the case of Dr. Abernethy, the English surgeon, it was held by the Courts that while students might take full notes of the lectures, yet they could only use them for their own information and publish them in a medical journal without the author's permission. In short, they could not sell a lecture which they had not bought for selling. This decision says that no person has a right to report a lecture or other written discourse, delivered before a public audience and desired for use by its author in the same manner for his own profit, and to publish it without his consent or make any use of the copy thus obtained. The student who attends a medical lecture may have a perfect right to remember as much as he can, and afterwards use the information thus obtained in his own practice, or to communicate it to students or classes of his own, without involving the right to commit the lecture to

writing for the purpose of subsequent publication in print or by oral delivery. A medical teacher designs to instruct his pupils, but not the profession or public at large. Any use, therefore, of his lectures which would operate injuriously to the lecturer would be a fraud upon him for which the law would give him redress.

The decisions thus given in this case are of much importance, in that they establish: 1st, the right of lecturers to retain full property in material which has been publicly delivered in the form of lectures; and 2d, the value of a verbal permission "to print" as affecting a formal contract "to publish."

Messrs. Putnam have the thanks of lecturers for thus obtaining a legal statement of their rights.

Journalistic Ethics.

It will scarcely be claimed that there is any written moral law governing the work of medical editors. The humanity of each is apparent in their writing, as is obvious to the most superficial observer. The writing of the editor of the Philadelphia *Medical Times* would scarcely be confounded with that of the editor of the *Medical Record*. So it is with every other editor. The great criticism we have made in our minds respecting medical editors as a class is that they fail to give sufficient individuality to their several publications. Other editors see other defective things more clearly. Thus, the editor of the *Specialist*, in his last issue, tells us his impressions of some medical editors: Thus: "We have observed that in the midst of his most arduous labors there is never lacking opportunity—if it seem to promise enjoyment—for the editor to publish an artfully worded but damaging assertion, or a well expressed inuendo, over which he may secretly laugh, or think how his victim will start when it hits him; or how he will wish, perhaps, that he were an editor himself; or, it may be, write an indignant letter of reply, which will serve but as an additional advertisement to the journal that attacked him, accomplishing no revenge, since the editor we refer to knows full well how to explain away what he wrote and assume an innocent air of wonder that it should be thought offensive. Nay, more; the editor may from his easy chair shoot out a series of small sneers, which shall stick like the little darts used in bull fighting, and annoy extremely

a nobler beast, that, however able under ordinary circumstances to resist an attack, will be irritated and exasperated beyond measure, when as he charges full at his tormentor, he sees him spring nimbly to one side or leap a parapet to a place of safety, while he himself staggers back with the recoil from his fruitless impact against an impersonal and irresponsible barrier." In answer to the inquiry respecting the justice of this course, he says: "It is always right, even if people's feelings are hurt, to reprove wrong doing, to combat error, to expose hypocrisy; but it is never right to say disagreeable things about individuals or classes simply in order to gratify a personal spite, or in order to be smart, or where there is not some actual good to be gained by so doing."

After brother Dulles has edited a medical journal half a century, he will find that editors are but human. Some by nature or education, or both, are truthful, honorable and noble; others are exactly the opposite. Between these two extremes there is a motley group, representing almost every grade of moral character and professional life. In so far as they work on their journals at all, their characters are stamped thereon. "By their fruits you shall know them," said the Great Master. We shall hope that brother Dulles' courteous suggestions may do some good in working the desired reformation, but we fear the hope may not be realized.

British Bogus Diplomas.

The United States has suffered much from the sale of bogus diplomas by bogus medical colleges. Few have been louder in their condemnation of this state of things than the British press. One naturally inquires, does anything of this sort occur elsewhere, or are the Americans altogether farther gone in shameless wickedness than other countries? We judge not, if we are to credit the statements of the *London Lancet*. In one of the March issues we find the following: "One of our own medical corporations some years since is said to have made in one year ten thousand pounds sterling by the virtual sale of its lowest qualification. Further, the Royal College of Surgeons, of Edinburgh, does virtually sell its Fellowship. Thus, if any person already possesses a license in surgery from any licensing body in the United Kingdom, applies to the Edinburgh College for a fellowship, and can accompany

his petition with testimonial showing that he has not broken any of the lesser commandments, the constitution and custom of the college are such that he will receive its fellowship on the payment of a certain sum. Thus the Royal College of Surgeons actually sells its Fellowships. The Royal College of Physicians and the Faculty of Physicians and Surgeons of Glasgow also sell their Fellowships on the same easy terms, viz: no examination, no study, no presence of the student, only the license, the testimonials, and the money. A case in illustration is given: "A student was rejected at the Royal College of Surgeons of London. He immediately started for Edinburgh, where he was again rejected. Upon this he went to Glasgow and passed. He registered as a qualified practitioner, forwarded certain sums of money to Edinburgh, and as a qualified practitioner, was made a Fellow by the very college that had not long before rejected him as unfit, by examination, to have a license."

Memoranda.

Dr. J. W. Holland succeeds Dr. Cowling as editor of the Louisville *Medical News*.

A State Board of Health has been authorized in the State of Indiana. Its provisions are much the same as those of the Michigan law, governing the Michigan Board.

It is stated that Prof. Charcot recently received nine thousand dollars for a consultation visit to Moscow.

A new medical college is announced at Pittsburgh, Pa.

The *Medical Times* says that the new Medico-Chirurgical College of Philadelphia is to be modeled after the University as to its requirements, fees, etc. We certainly hope it will at least do what it announces, be honest.

Dr. Frank Hamilton says that had he possessed the *Index Medicus* when he began the study of medicine, it would have saved him several years of labor, and thus have added thus much to his life. To any medical student it is a saving of time and money. Let every scholarly physician support Mr. Leypoldt in his efforts to continue its publication. Send on your order just now. Do not defer it till to-morrow, lest you forget it altogether.

Dr. D. W. Niles, of Massachusetts, has made some observations showing that in

some cases an exclusively milk diet will be accompanied by an accumulation in the rectum of large masses of pultaceous and extremely tenacious material, removable only by mechanical means. The deposit is bright yellow in color, soft, greasy, exceedingly adhesive, not soluble in water and not removable by cathartics or injections. Hence, constipation with a milk diet should be investigated.

The British *Medical Journal* reports a death from chloroform at the Bradford Eye and Ear Infirmary, on February 28. The patient, after a careful examination, was pronounced entirely healthy. He was to be operated upon for cataract. Only about a drachm and a half had been administered when the pulse stopped and in spite of all efforts the patient died. It was stated that the patient was greatly frightened at the prospect of taking chloroform.

The nursing question at Guy's Hospital, London, England, has been settled by the adoption, by the governors, of a series of regulations for nurses such as the staff can heartily endorse. Under these, the nurses are to be under the control of the medical staff, all that was asked by the staff. It is too bad that the governors of the hospital could not have reached this conclusion earlier.

From September 1st, 1880, to February 12th, 1881, there were in Philadelphia, Pa., six hundred and fifty-six deaths of small pox, one in twelve of all deaths. It is sad to think, that all this loss of life might have been saved by simple vaccination.

Henry C. Lea's Son & Co. announce the preparation of a work on Obstetrics, by Dr. T. Parvin, of Indianapolis, Ind. A Practical Treatise on Impotence, Sterility, etc., of the Male Generative Organ, by Samuel W. Gross, M. D.; Lectures on the Diseases of the Nervous System, by S. Weir Mitchell, M. D.; and a Practical Treatise on Electricity, by Prof. Bartholow.

J. B. Lippincott & Co. announce the preparation of the third volume of Agnew's Surgery.

D. Appleton & Co. announce the preparation of The Applied Anatomy of the Nervous System, by Dr. A. L. Ranney.

G. P. Putman's Sons announce the preparation of a work on Diseases of the Eye, by Dr. W. F. Mitterdorf.

Prof. Huxley says, that he has long held the opinion that any man who has taken an active part in science should be smothered at sixty. The trouble with men after sixty is, that they become obstructionists to the progress of new ideas. The Professor is but fifty-five.

To detect arsenic in fabrics, Dr. Barnes suggests: Immerse the suspected fabric in strong ammonia on a white plate. If the ammonia becomes blue, the presence of a salt of copper is proved. Then drop a crystal of nitrate of silver into the blue liquid and if any arsenic be present the crystal will become coated with yellow arsenic.

William Wood & Company have sold all their stock of medical books and merchandise, excepting their own publications, to J. H. Vail & Co. Hereafter they will devote themselves to the publication and sale of their own books. J. H. Vail & Co. succeed to the facilities that have been accumulating about the house of Wm. Wood & Co. for the past fifty years.

It is stated that the Cleveland Medical College and the Medical Department of the University of Wooster, are about to be united into one Medical College. It is devoutly to be wished that this can be accomplished with success.

A French court has decided that promises made to a doctor by a sick person are not valid in law. The ground for this is the fact, that the patient is no longer master of his will, and any agreement entered into must be under the influence of either fear or necessity.

The Cincinnati *Lancet* says, that last year the physician of the small pox hospital received \$300 apiece for treating one case of varioloid, and one case of measles. Good for the doctor if not for the city.

It is stated that 5,000 voting citizens in the State of Michigan have sent a petition to the legislature, asking for the establishment of a chair of eclectic medicine in the University of Michigan.

On April 13th a large and influential meeting of the medical profession was held at New York to enter its protest against the present filthy condition of the streets of that city, and to insist on the legislation needful to have them cleansed at once. In no uncertain voice, this meeting pointed out the dangers attending the present and past methods

for cleansing the streets of that city, and demanded that, irrespective of party, the legislature take instant measures to remedy the existing evils. We rejoice that in one city the profession has united in looking after the public good as a whole. We have no doubt that if this were judiciously done in every city and town, it would be found that matters pertaining to the public health could be arranged so as to promote the good of the greatest number.

In his *Reminiscences*, Carlyle tells us that he suffered from dyspepsia. Once he rode sixty miles to Edinburgh to consult a doctor. Having reduced his complexities all to a single question, he asked the doctor, "Is this disease curable by medicine? is it chronic; incurable except by regimen, if even so?" To this question, earnestly put, the doctor replied: "It is all tobacco, sir; give up tobacco." He gave it up instantly and strictly. "Found after long months, that I might as well have ridden sixty miles in an opposite direction and poured my sorrows into the long hairy ear of the first jackass I came upon as into this select medical man's, whose name I will not mention."

Mr. George I. Seney has give \$270,000 for a general hospital to be located in the southern portion of Brooklyn, N. Y. It will occupy an entire block of ground and be constructed on the cottage plan.

The *Medical Record* says, that still nothing is doing among the medical societies of the State of New York, in the way of enforcing the medical law. Meantime quacks advertise, incompetent men practice, and the regular profession suffer. From present indications it would appear that the practical intention of the law was to keep the regular profession within bounds so that the irregulars and quacks might have a better chance.

Professor Rachel Boddey, at the late commencement of the Woman's Medical College of Philadelphia, says that an extended inquiry respecting the incomes of the graduates of that school, shows that the average annual income of these is \$2,907; twelve make over \$5,000, and four over \$15,000. That statement should fill the seats of the school.

A firm in New York has started for the purpose of supplying drugs and other preparations to such physicians as desire to supply their patients with medicines.

Dr. Shradly says, that during last autumn he made a tour of inspection of various quarters of New York. He found that the most sensational accounts of the mixture of garbage and ashes, the strewing of offal and dead cats, and vegetable cans, together with the obstructions of drays and carts, were not overdrawn. The accumulations of an unusually severe winter and the influence of moisture and warmth on the scething mass, has, in the minds of almost all medical men, accounted for the malignity of disease during the past months. Let New York be cleaned at once or more than the first born will be called for. Such is the warning of the medical profession almost to a man.

Eugenol is a derivative of the oil of cloves. It has a formula, $C_{10}H_{12}O_2$, and forms salts with bases. The president of the Liverpool Pharmaceutical Society says that it is a powerful antiseptic.

In Great Britain more persons were killed last year by horses and horse accidents, than by all the railways in the kingdom. The total registered violent deaths in the same countries for last year was twenty-three thousand.

Dr. Gerhard Westfelt's *British Medical Journal* presents a series of facts, derived from an exhaustive study of the statistics of drunkenness in Sweden, during a long series of years. From these he concludes: "About 1855 a reform movement produced a considerable reduction in the number of cases of disease and death due to the abuse of alcohol. From 1860 to 1865, this was markedly evident. The movement reached its height in 1868, when the abuse of alcohol and its evil consequences was less than at any time during the preceding seventeen years. From 1872, drunkenness again increased, and during 1874 and 1875, was greater than at any time since 1855. Again in 1876, signs of improvement in the use of alcohol began to show themselves, and in 1877 was a marked diminution in the use of the drug. These fluctuations, he thinks, must have their origin in varying economic conditions.

Our friend, Dr. Cowling, of the *Louisville Medical News*, never wrote a truer sentence than the following: "Upon gradation of subjects, demonstrative teaching, and text book studies, depend the only basis of true reform in medical teaching."

Dr. Carl Spinzig, (*St. Louis Clinical Record*), from an elaborate paper, concludes that vaccination is dangerous and utterly futile, and hence, that its claimed protection against small pox must be regarded as a vanity and its continued practice a crime. Guess you will have to bring on more and better evidence before the profession endorses such conclusions, doctor.

On March 23, a physician at Paterson, N. J., was arrested for practicing without a diploma. This is the first arrest ever made under the law. Its outcome will be looked for with interest.

Any person having for sale the first seven volumes of the *Detroit Review of Medicine and Pharmacy*, will please correspond with Dr. J. F. Noyes, 101 Shelby Street, Detroit, Mich., stating price, etc.

We have received the first number of the *Microscope* and its relations to Medicine and Pharmacy. It is edited by Chas. H. Stowell, M. D., and Louisa Reed Stowell, M. S., and published by the same parties from Ann Arbor, Mich. The number before us contains 32 pages; is printed on good paper, and issued in good style from the press of George S. Davis, Medical Publisher, Detroit, Mich. The *Microscope* will be issued bi-monthly for \$1.00 a year. The volume opens with an illustrated article on ipecacuanha, its structure and adulteration; one on membranous dysmenorrhœa, by Mrs. B. A. Owens, M. D., Portland, Oregon; a case of oxaluria by E. O. Bennett, M. D. Editorials and abstracts fill the remaining portions of the journal. We cordially welcome the *Microscope* to our list of exchanges.

It gives us pain to chronicle the death of our old friend, Dr. Richard O. Cowling, editor of the *Louisville Medical News*, and professor of operative surgery in the medical department of the university of Louisville. Large hearted and large headed, full of wit and humor, enthusiastic to do his share in making the world as bright and good as possible, he has left an aching void in many a heart, from the dog to whom he was ever a friend, the boys that followed him on the streets to the sage in the profession, who recognized at once his learning, his skill, and his good sense. His journal was his pride, and by it he did much to influence the profession for good.

Dr. Isaac Ray, the distinguished physician and author, died at Philadelphia, March 31, in the seventy-fifth year of his age. He was as severely loved and esteemed as he was known.

The Indiana legislature has passed a bill authorizing the Governor to appoint a State Board of Health.

Dr. Gairdner, in his work on gout, relates that Dr. Gregory, of Edinburgh, struck by the serious sufferings he had witnessed among his relatives, resolved, at an early period of life to subdue the tendency of the disease in himself. He prescribed to himself a frugal diet with much bodily exercise, and by strict adherence to these rules he attained his object, of being the first individual of his family who lived and died free from gout. He further records the case of a gentleman of the Stock Exchange, who suffered so much from gout as to become quite a cripple. He was seldom seen but wrapped in flannel at his chimney corner, where, notwithstanding, he retained great cheerfulness of character. He was overtaken by one of those great reverses of fortune, to which persons of his profession are so much exposed. Compelled by necessity, and assisted by abstinence, he returned to business, and surprised his friends by becoming once more one of those hurried and nimble individuals so well known to all men who frequent the city.

The following communications from the *Detroit Post and Tribune*, of April 24, are of sufficient general interest to warrant their publication here. We do so the more readily, as they give three distinct views of the matters from parties immediately involved. We make no comments just now:

THE DETROIT MEDICAL COLLEGE.—

Resignation of a Majority of its Faculty—The Reasons for their Action fully stated—Dr McGraw's Presentation of the Case—The Students Resolve in Favor of the Resigning Professors.

The members of the faculty of the Detroit Medical College who were opposed to the appointment of Dr. Eugene Smith as a member of the adjunct faculty, and dissatisfied with the policy which President McGraw desired to inaugurate in the management of the institution, have tendered their resignation to the board of trustees. Their reasons and grievances are recited in the following

document, which was placed in the hands of Philo Parsons, the Secretary of the board, yesterday morning:

THE DOCUMENT OF RESIGNATION.

To the Trustees of the Detroit Medical College:

GENTLEMEN.—Whereas, We have received official notice of the recent action of the board in its appointment of a teacher in the adjunct faculty, in conformity with the request of the President of the faculty, and

Whereas, This action has been deliberately taken in opposition to the judgment of a considerable majority (six to four) of the faculty, and avowedly to sustain a policy which we believe will result in disaster to the college;

Therefore, we do hereby respectfully resign our official connection with the faculty of Detroit Medical College, for the following reasons:

1. Because this action establishes a new departure in the management of the college, which seems to us destructive to the harmonious working of the present faculty. The custom which, until now, has uniformly controlled the faculty has been, that no recommendation should be made to the trustees without the unanimous approval of the faculty. This has been sanctioned by twelve years of successful teaching and general prosperity; and hitherto it has been respected by your honorable body. Moreover, it has received the endorsement of the professional public as shown by the enviable reputation for honorable work and thorough teaching which the college has sustained among physicians and medical educators.

2. The method pursued in making the recent change, virtually places the governing faculty under the control of one man. In our belief, it opens the way for rendering the course liable to be conducted for personal aggrandizement, sacrificing the interests of education and the dignity of the profession to personal ambition, and converting the clinics, dispensaries and other charitable features of the college into transparent advertising schemes in the interest of the faculty. We believe that the best antidote to this danger lies in the American principle of majority rule, and with the death of this principle in faculty government, we cannot consistently longer remain connected with the college.

Respectfully submitted, Detroit, April 23, 1881.

JAS. F. NOYES, M. D.,

Emeritus Professor of Ophthalmology and Otolary.

GEORGE P. ANDREWS, M. D.,

Professor of Principles and Practice of Medicine.

C. B. GILBERT, M. D.,

Prof. of Obstetrics and Diseases of Women and Children.

SAMUEL P. DUFFIELD, M. D., PH. D.,

Professor of Toxicology and Medical Jurisprudence.

ALBERT B. LYONS, M. D.,

Professor of Chemistry.

LEARTUS CONNOR, M. D.,

Professor of Ophthalmology and Otolary.

HAL C. WYMAN, M. D.,

Prof. Physiology and Director of Physiological Laboratory.

MORSE STEWART, JR.,

Instructor in Materia Medica and Therapeutics.

When the trustees of the college decided to sustain President McGraw, they were informed that in the event of such action certain members of the faculty would probably resign. As the board requested a withdrawal of the resignation of President McGraw and endorsed his policy, it is quite likely that their resignations will be promptly accepted, unless withdrawn.

INTERVIEW WITH DR. M'GRAW.

President McGraw, speaking to a *Post and Tribune* reporter last evening, relative to the resignation, said: "I have no feeling except that of kindness for all the members of the faculty, and should be sorry to part with any of my old associates. I am in hopes that they will reconsider their action, but if they insist upon resigning we have several men in the adjunct faculty who are equally competent to fill the places which they will leave vacant, and their withdrawal will in no wise affect the college. I can't say what action the trustees will take, but I do know that while the board has a very kindly feeling for all members of the faculty, and prefers to have them all remain, they will not permit these men to run the college to suit themselves.

When asked what the objection was to the appointment of Dr. Eugene Smith, President McGraw replied that it was based wholly upon the desire to make the college a personal affair for the benefit of a few. Dr. Connor was appointed professor of diseases of the eye and ear. Dr. Smith, as surgeon at St. Mary's hospital, had a great many of these cases, but they could not be utilized for the benefit of the college, as Dr. Connor had no appointment at St. Mary's, and we could not obtain one for him. It was desirable that the students should have the benefit of Dr. Smith's operations, and this did not interfere at all with Dr. Connor's privileges. He held his clinics at the college and enjoyed the same opportunities that he did before. The students were denied the benefit of Dr. Smith's operations and the faculty endorsed this refusal. A policy of this kind could not fail to prove detrimental to the college, and the trustees so regarded it and overruled the faculty. The real point is as to whether the faculty or the trustees are to run the college and have control of the appointments. The issue happened to be raised on Dr. Smith. It might have fallen upon myself or any other

member. If I find a strong man who can be utilized in my department (surgery) I should be glad to have the students get the benefit of his skill and experience.

THE REMAINING FACULTY.

The members of the regular faculty, aside from those names attached to the document published above, are Dr. McGraw, Dr. N. W. Webber, Dr. H. O. Walker and Dr. E. L. Shurly. The adjunct faculty consists of Dr. J. H. Carstens, Dr. F. A. Spalding, Dr. J. G. Johnson, Dr. E. A. Chapoton, Dr. David Inglis, Dr. J. W. Robertson, Dr. A. E. Carrier, Mr. A. B. Stevens, Dr. Chas. G. Jennings and Dr. Eugene Smith.

A meeting of the trustees will probably be held early this week to take action on the resignations.

ACTION OF THE STUDENTS.

After the resignations had been made public the following paper was drawn up, and it was claimed last evening that it had received the signatures of a majority of the students:

"We, students in the Detroit Medical College, regret the circumstances that have caused Dr. Connor to withdraw from the faculty of the College, although we heartily approve of his action in the matter, for the following reasons:

"First—Because of his eminent services in advancing and elevating the standard of medical education in this country to a higher plane than it has heretofore occupied, a work in which he was the pioneer and is now the leader.

"Second—Because of the unselfish labor he has performed in and for the Detroit Medical College. As secretary of the faculty and in the chairs he has occupied he has devoted himself to the interests of the College, without, we believe, receiving any compensation, either directly or indirectly, other than that which comes from the knowledge of having faithfully performed his duty.

"Third—Because in his intercourse with us he has always united the qualities of the thorough and impartial teacher with those of the pleasant and courteous gentleman.

"Further, we believe that the withdrawal of Prof. Connor, together with Professors Noyes, Andrews, Gilbert, Duffield, Lyons and Wyman and Doctor Stewart will tend to lower the standard of the College in the opinion of both the profession and the public, and that it will be to our interest as present students and future practitioners to attend and graduate from some other institution than the Detroit Medical College."

Hon. Thos. A. Scott has given \$50,000 each to the Jefferson and Pennsylvania Medical Schools, and \$30,000 to the Orthopaedic Hospital.

Editor's Book Table.

The Books Noticed in these Pages are for Sale by THORNDIKE
ROUSE, Detroit, Mich.

Tyson's Treatise on Bright's Disease and Diabetes.*

The author tells us that his reason for writing this work was to place before the profession the results of fifteen years' observation and careful study of these diseases, these results including an amount of material having a positive value to others. Two colored plates and thirty-six wood cuts illustrate the text. Some are taken from other authors, and some have been drawn for this work by Dr. Piersol. All are so judiciously selected as to make prominent some important fact or facts. The chapters on the structure and functions of the kidneys represent the most modern researches on these subjects. Concerning the functions of the kidneys, the author accepts the view "that the water of the urine is filtered out in the Malpighian capsule, the condition favorable to such filtration being supplied by the increased blood pressure which exists in the glomerulus. In this water may be dissolved some of the inorganic constituents of the urine, but the most important nitrogenous principles, the true effete and poisonous matters which it is the office of the kidney to remove, are separated by the agency of the cloudy cells lining the convoluted tubes, the ascending limb of Henle's loop and the intermediary segment of Schweigger-Seidel. From these cells they are pushed out into the lumen of the tube by the vis-a-tergo of additional secretion, and dissolved by the water which comes down from the Malpighian capsule, thus producing the urine, which is gathered up by the collecting and excreting tubes, by which it is emptied into the pelvis of the kidney at the papillæ." Concerning the value of casts in making a diagnosis of a renal malady, he offers the following general statements: "Hyaline casts are found in all forms of Bright's disease, as well as in temporary congestions of the kidney, active or passive. Epithelial casts are found in acute, subacute and chronic parenchymatous nephritis. In the latter two

forms, the cells are generally degenerated and fragmentary. Blood casts are found in acute parenchymatous nephritis, and where hemorrhages have occurred in the kidneys. Pale granular casts are found in interstitial nephritis (contracted kidneys), and chronic parenchymatous nephritis (large white kidney). Dark granular casts are found in parenchymatous nephritis, acute and chronic, and rarely in interstitial nephritis. Waxy casts are found only in chronic Bright's disease, and attend either of the three principal forms. Oil casts are found in sub-acute and chronic forms of Bright's disease, and may attend any of the three principal forms, but are most numerous in chronic parenchymatous nephritis. Free fatty cells and free oil drops are found in chronic parenchymatous nephritis. The form of fatty cell known as the compound granular cell is found in acute and chronic parenchymatous nephritis." He classifies Bright's disease into acute and chronic. Acute Bright's disease is represented by a single form, acute parenchymatous nephritis. Chronic Bright's disease includes chronic parenchymatous nephritis, lardaceous disease and interstitial nephritis. Acute hyperæmia is represented by the first stage of acute parenchymatous nephritis. A special section is devoted to suppurative nephritis. The account given of these several diseases is of exceptional value and interest. Of the effects of milk diet in chronic parenchymatous nephritis, he says that they are among the best acknowledged results to be obtained in the treatment of this malady, as evidenced in the diminution of albuminuria, decline in dropsy, increase in the quantity of urine passed and general amelioration of symptoms. He finds the pure milk diet the best method of applying it. As to the amount required, he finds for adults needed about three to three and one-half quarts. As to the rationale of its value, he says there is reason to believe that it operates by affording an easily assimilable food freely diluted, which can be taken in sufficient quantity to provide the forces of the economy without surcharging the blood with nitrogen.

The chapter on the retinitis of Bright's disease was prepared by Dr. W. F. Norris. It gives the latest views of this interesting complication. The summary made of the present state of our knowledge of diabetes mellitus is so excellent that we give it entire:

*A TREATISE ON Bright's Disease and Diabetes. With especial reference to pathology and therapeutics. By James Tyson, A.M., M.D. Philadelphia: Lindsay & Blackiston. 1891. Pp. 312. Cloth; price, \$3.50.

"The liver is storing up in its cells a substance identical in its composition with vegetable starch, and readily convertible by a diastatic ferment into grape sugar. This substance is derived chiefly from the amylaceous and saccharine articles of food, but partly, also, from albuminous food; possibly it is formed from fat. The blood contains at all times a small amount of grape sugar, which in health is mainly derived from the glycogen of the liver cells. A very minute and probably unrecognizable trace is absorbed directly from the intestine by the lacteals. So long as the quantity of sugar in the blood is restricted within certain limits, in dogs from .25 to .6 per cent., sugar does not appear in the urine; but if these amounts are exceeded, glycosuria occurs. Various injuries to the nervous system, as puncture of the fourth ventricle, transverse section of the medulla oblongata and certain of its branches, produce pathological glycæmia and glycosuria, which are the result of increased sugar formation and not diminished consumption. The immediate result of nerve lesions is active hyperæmia; the hyperæmia is, therefore, the immediate cause of the glycosuria. The sources of the sugar in the blood and urine under these circumstances are probably two: 1st, the grape sugar absorbed from the intestine, which is carried through the liver too rapidly to permit of its conversion into glycogen; and 2d, the glycogen itself, which is more rapidly converted into sugar in the blood by its ferment than in health. In diabetes, there exists a similar excess of sugar in the blood, which in like manner is the result of increased sugar formation rather than diminished consumption. Although we can conceive the possibility of diabetes resulting from simple over-ingestion of saccharine food, or undue rapidity of conversion of starch and cane sugar into grape sugar in the intestine, and more frequently from failure of the liver to intercept and convert into glycogen the normally ingested sugar and starch; in the more serious cases, there is, more probably, superadded the too rapid conversion of glycogen into sugar. This is at first derived from saccharine alimentary principles, but sooner or later comes from the albuminous principles. While we are able to trace a certain number of cases of diabetes to direct lesions of the nervous system, most frequently injuries or morbid

growths in the vicinity of the medulla oblongata and cerebellum, there are many cases in which no such association can be shown to exist." In testing for sugar, the author still prefers Trommer's test. Its ingredients are readily attainable, and there is no risk of error from changes, to which Fehling's and Pavy's qualitative solutions are subject from age, while the latter are subject to the same sources of error, either from the reduction of other substances than sugar and to obscuration of the reduced oxide, which is occasionally held in partial solution by other constituents, as ammonia, creatin, etc. All practical difficulties are removed by filtering through animal charcoal the urine to be examined. This disease he regards as amenable to treatment, if seen early and properly managed.

The work is handsomely printed. Altogether, it is worthy of its distinguished author's reputation. It will prove very helpful to such as turn to it for instruction and aid.

Van Buren's Lectures on Diseases of the Rectum.*

Several years since, Dr. Van Buren published a few lectures on this subject. These were very popular with the profession, so that in a short time the entire edition was exhausted. The present is a new volume rather than a new edition. Both its size and material are vastly beyond its predecessor. The same scholarly method, the same calm, convincing statement, the same wise, carefully matured counsel, pervade every paragraph. The discomfort and dangers of the diseases of the rectum call for greater consideration than they usually receive at the hands of the profession. The subject is discussed under the following heads:

Pruritus ani, erythema, herpes, chronic eczema, eczema marginatum, oxurism vermicularis, hemorrhoids, prolapsus ani, polypus and benign tumors, abscess, fistula in ano, irritable ulcer of the anus, ulcer of the rectum, benign stricture of the rectum, cancer of the rectum, congenital malformation, fecal impaction, foreign bodies in the lower bowel, atony of the rectum, diagnosis and exploration, neuralgia of the anus or rectum, and hygiene of the lower bowel. The illustrations are excellent.

* LECTURES ON DISEASES OF THE RECTUM AND LOWER BOWEL. By W. H. Van Buren, M. D., LL. D. New York: D. Appleton & Co. Pp. 412. Cloth; price, \$3.00.

In the itching of chronic eczema, among other remedies, he recommends a saturated solution of bi-carbonate of soda. There is a certain pain-killing quality possessed by this salt beyond its property of neutralizing acidity. As illustrating the mistakes in recognizing the exact nature of diseases of the lower bowel, the author says, "that he was present at a consultation in the case of one of the most learned and able surgeons of his day. Though suffering from cancer of the rectum, he persistently spoke of his malady as 'piles,' and was anxious that Dr. Van Buren should remove them." Hence, it is not always safe to accept the assertion of the patient that his complaint is really hæmorrhoidal without inspection. As hæmorrhoids do not appear in the Indian races or in quadrupeds, the author thinks that this disease is an appendage of civilized humanity, in so far as its predisposing cause is concerned. On the other hand, its exciting cause is principally neglect and irregularity in answering the calls of nature, and the violence ruthlessly inflicted on the lower end of the bowel in the extrusion of costive stools by forcible effort.

Concerning external piles, the following points are especially emphasized: (1) Their identity as to etiology and pathology with internal piles; (2) Their preventibility by intelligent hygiene; (3) The liability to mistake other growths at the anus for external piles; (4) That they may become inflamed without involving internal hæmorrhoidal tumors if these are present; and finally, the dominant influence of the powerful external sphincter muscle in obstructing their circulation, in aggravating pain when they are inflamed, and in delaying their cure.

Abcesses about the rectum should *always* be *opened* and *opened early*, even without waiting for equivocal evidences of fluctuation. All incisions for this purpose should radiate from the anus as a center, and thus avoid cutting across the general course of blood vessels, and the possibly bad effects of subsequent contraction in healing. These abcesses should always be freely laid open by a free incision. Ample provision should be made for drainage. Antiseptic dressings should be constantly employed. Having been thoroughly evacuated before the operation, the large bowel should be given entire rest and no defecation for some days after-

wards. We have no further space to devote to this work. Classical and scholarly in diction, scientific in matter, pleasing in the rythmical flow of sentences, it will take the highest place among medical works of its kind. No practitioner can afford to be without its friendly aid. All will gain from its suggestions of great importance to both themselves and patients, and derive positive enjoyment from reading it.

Magnin on Bacteria.*

For several years the consideration of bacteria as a cause of disease, has held a prominent place in the professional mind. In European countries elaborate investigations have been made to determine the origin, the habits and the work of these organisms; in a word, to determine their natural history.

This part of the subject has been less pursued in America, our observers devoting themselves mainly to the practical application of the supposed demonstrations of the European savants. The work before us has been the standard on the natural history of the organisms in France, and we rejoice that Dr. Sternberg has done us the service of translating it into English. Every English speaking physician now has it in his power to study the natural history of bacteria. Of course the material is condensed to the utmost, and will suffice only for those who cannot make exhaustive researches into this subject. To those desiring to go further the translator has appended a complete list of all the works treating of the subject. Part first treats of the organization of bacteria, their classification and description. Part second treats of the development of bacteria in general, of their development in different media, of their role in putrefaction and nitrification, in fermentation, in virulent affections and in surgical lesions. He finally sums up our knowledge as follows:

1. Bacteria are cellular organisms of vegetable nature.
2. Their organism is more complicated than was for a long time believed. The principal points brought to light are: their structure, the presence of cilia, the nature of the substances contained in their protoplasm, copper colored granules, grains of sulphur, etc.

*THE BACTERIA. By Dr. Antoine Magnin. Translated from the French by George M. Sternberg, M. D., U. S. Army. Boston: Little, Brown & Company. 1880. Pp. 227. Cloth.

3. The forms of torula, zoogloea, leptothrix, mycoderma, etc.

4. The multiple affinities of the bacteria, on the one hand to the algæ, on the other with the fungi, differently understood by authors, and their development still unknown for the greater number of species, make it impossible to classify these beings except in a provisional manner.

5. This development, well studied in several species of bacillus, has proved that bacteria may multiply not only in fission, but also by formation of spores, and even by veritable sporangia.

6. These spores or permanent germs are the principal means by which these inferior organisms are disseminated.

7. As to their role in fermentations, in putrefactions, in contagious diseases and in surgical lesions, notwithstanding the considerable number of labors of which the bacteria have been the object in these different points of view, it is not yet possible to define it in a certain manner.

Thus it appears that there is very much more to be done in the study of bacteria, before we can be said to understand them or their works for good or evil.

Meantime both the believers and disbelievers will alike be interested to have this work as an aid in the prosecution of their investigations into the nature and causation of disease.

The volume is handsomely issued and finely illustrated. Not only the physician but the botanist and all well educated scientific persons will be interested in the study here opened up.

Moir's Manual of the Practice of Medicine.*

This work is modeled much on the same plan as Ranney's Manual of Surgical Diagnosis. Its design is to refresh the memory of the practitioner, or the advanced medical student in the pathology, etiology, symptomatology, differential diagnosis and treatment of the more important diseases. The writer endeavors to show that no diagnosis should be made final without a careful study of each individual symptom; and that to be rapid and accurate in diagnosis, the cause of each prominent symptom of disease

*A MANUAL of the Practice of Medicine. Designed for the use of Students and the General Practitioner. By Henry O. Moir, M. D. New York: Steam Press of the Industrial School, 187 E. 70th Street. 1881. Pp. 453. Cloth; price, \$2.50.

should be held constantly in mind. The arrangement of the material is such as to enable the reader to master, in succession, the general basis on which the symptoms of disease are divided, all the diseases which may be met with in each of the various organs of the body, the more important symptoms of disease and their etiology, the special points pertaining to the diagnosis and prognosis of the individual forms of disease. A large number of prescriptions are added for such as cannot write their own. Extreme condensation is everywhere apparent. As an illustration of its method, we turn at random to the subject of angina pectoris. In regular order we find its definition, its morbid anatomy, etiology, symptoms, differential diagnosis, prognosis and treatment. All this occupies about one and one-half pages. The condensation seems to have been done with care and accuracy. It will be of excellent service to such as use it in the manner proposed by its author. But to any who may endeavor to make it take the place of fuller works, it will prove a delusion and a snare.

Rumbold on the Hygiene and Treatment of Catarrh.*

The hygienic part of this work was issued some months since as a separate volume. This, being noticed then, will not require farther notice here. Concerning the remaining portion, it is to be said that most of the substance of it has appeared in some of the medical journals during the past fifteen years. The author's special methods are tolerably well known to such in the profession as are interested in the treatment of catarrh. These methods are fairly well given here in a more accessible form. Numerous cuts illustrate the special instruments he has devised for the more perfect treatment of these cases. The fullest detail is given of every part of the treatment recommended. The author thinks that the profession will ultimately accept his teachings on chronic catarrhal inflammation of the nasal passages preceding all catarrhal diseases of the respiratory tract, ears and eyes; on the liability of this inflammation giving rise to diseases of other parts of the organism that are intimately connected with the nasal cavities by nerves:

*THE HYGIENE and Treatment of Catarrh. With forty illustrations. By Thomas F. Rumbold, M. D. St. Louis, Mo.: Geo. O. Rumbold & Co. Cloth; pp. 478.

on the paramount importance of hygienic measures; on the great advantage of treating all catarrhal mucous membrane with non-irritating remedies by mild methods; on the spray producer being the only instrument that should be used to make application to the inflamed mucous membrane; on the possibility of successfully treating all the majority of laryngeal troubles by applying remedies to the pharyngo-nasal cavity alone; on the importance of making ocular and aural examination of the ear at the same time, by means of the acou-otoscope; on the certainty of detecting a perforation of the membrana tympani by the tuning fork; the advantages gained by maintaining a perforation of the membrana tympani to insure a more thorough treatment of the eustachian tube and middle ear; on the functions of the uvula, the azygos prominence, the eustachian tube and mastoid cells."

Those interested in the treatment of catarrh will read with profit the results of the writer's twenty years' experience. All of his conclusions will scarcely be accepted by any one, but even those not accepted will prove suggestive of thought. The egotism pervading the entire work, while it will offend some, will please and impress others. Confined as it is almost exclusively to the writer's own experience, the work is necessarily narrow in its scope. This, too, has its advantages and disadvantages. It merits commendation for its teaching of mild measures, and the greatest care in making the local applications.

Kellogg's Home Hand-book of Domestic Hygiene and Rational Medicine.*

This is a ponderous volume of nearly sixteen hundred pages. As its title indicates, it is designed for popular use, and is sold by subscription. The writer's reasons for its preparation, as stated by himself, are as follows:

1. To present in a popular and condensed form the latest and most reliable information on the subjects of anatomy, physiology and hygiene.
2. To call especial attention to the causes of disease and the best means of prevention.

*THE HOME HAND-BOOK of Domestic Hygiene and Rational Medicine. By J. H. Kellogg, M. D. Battle Creek, Mich.: Good Health Publishing Company. 1881. Pp. 1,568. Sheep. Sold by subscription.

'3. To supply information respecting simple measures of treatment that can be employed by persons of ordinary intelligence in the absence of a physician, when a physician cannot be obtained at once or need not be called, as in cases of accidents and simple diseases or injuries, which require only good nursing and the employment of simple remedies; and, also, to render people competent to second the efforts of the wise physician in alleviating suffering and combating the fatal tendencies of disease.

4. To impress the importance of giving prompt attention to the first departures from health, and by controlling the small beginnings to prevent the inroads which result from a neglect of the employment of prompt and efficient measures.

5. To give a sufficiently clear outline of the nature of disease, and of the most approved methods of treatment, to enable the reader to discriminate between the wise and reliable physician and the charlatan.

Very few drugs are recommended, as the author believes that these should be left almost exclusively to the family physician. On the whole, more harm than good is done by their domestic use. The author designs this work as an aid to the wise physician, and as an aid in displacing the vast amount of worthless literature with which mercenary quacks have flooded the country. After a somewhat careful examination of the book, we must say frankly that the author has achieved more than ordinary success in the working up to his plans. That it will do much good, with a minimum of harm, is to us perfectly clear. Twenty-two colored plates and five hundred and two engravings make the text much more comprehensible. It is published in a shape appropriate to its mission.

Bigelow on Hydrophobia.*

This book is avowedly a pure compilation from books and current literature. Avowedly, it is designed for both the profession and the laity. The compilation has been done with good judgment, but after all it is patch work. Frankly, we do not like to read a book made to order. A good book, like a boy, exists because it must grow. This compilation will doubtless serve a good pur-

*HYDROPHOBIA. By Horatio Bigelow, M. D. Philadelphia: D. G. Brinton, 115 South Seventh St. One volume; 8 vo.; cloth. Pp. 154. Price, \$1.00.

pose, but it had served a far better purpose had it tarried in the head and heart of its author until he was so saturated, so to speak, with its subject matter that he must write. Such books are rare, but when they do come they stay and exert a lasting influence upon the classes to which they are addressed. The work before us relates the history of hydrophobia, its symptoms, preventive treatment and its prophylaxis, both public and private. We doubt not that it will serve a useful purpose in spreading truth concerning hydrophobia to those likely to need it.

Fox's Photographic Illustrations of Cutaneous Syphilis.*

Numbers seven, eight and nine of this series lie before us. They describe by text and illustration the following diseases: syph. tuberculosum, syph. ulcerativum, syph. squamosum, syph. crustaceum, syph. tuberculosum serpingiosum, syph. tuberculosum ulcerativum, scrofuloderma ulcerativum, syph. pustulo crustaceum, syphiloderma gummatosum, four cases. If possible, these illustrations surpass in realistic representation and artistic merit any preceding ones. The text is equally good, and the publishing uniform with preceding numbers. Those will be fortunate who are able to possess this series.

The Second Volume of Agnew's Surgery.†

This is a portly work of about seventeen hundred pages. It is embellished by about eight hundred wood cuts, many of them new. The subjects treated on, are dislocations, diseases of the joints, excision of joints and bones, concerning the use of the knife, venesection, general considerations respecting operations, anæsthetics, amputation, shock, traumatic fever, phlegmon, injuries and diseases of the genito-urinary organs, surgical diseases of women, surgical affections of the spinal or dorsal region, malformation of the head from effusion, surgical diseases of the mouth. As much of sound surgery as they will contain, is compressed within these pages. The compression seems to have been performed with excellent judgment, so that

*PHOTOGRAPHIC ILLUSTRATIONS of Cutaneous Syphilis. By George Henry Fox, A. M., M. D. Nos. 7, 8, 9. Price, \$2 per number.

†THE PRINCIPLES AND PRACTICE OF SURGERY, being a treatise on Surgical Diseases and Injuries, by D. Hayes Agnew, M. D., LL. D., Volume II. Philadelphia: J. B. Lippincott & Co., 1881. p. 1486. Cloth, price \$7.50.

the book fairly represents the views of the most accomplished of modern surgeons.

For the guidance of the practitioner, in dealing with vesical calculus, he lays down the following rules: All cases of calculus occurring in infancy and childhood should be lithotomized. All cases occurring in adults in which the stone is soft and not too large, should be treated by lithotom-lithrotrity. Even cases of hard stones, consisting chiefly of oxalate of lime, provided the concretion be small, and especially if there is any evidence of renal disease, should be treated by lithrotrity. All cases not included in the above category are proper subjects for lithotomy. The particular method of operating is to be determined by the magnitude of the calculus. Calculus patients suffering from serious structural diseases of the kidneys, are unsuited for either lithotomy or lithrotrity, and should be content with palliative treatment.

There is little opportunity to exhibit much originality in the subject matter of such a work. But every where we find evidences of original thought in the comprehension of the problems presented and the means proposed for their solution. As the latest comprehensive statement of these subjects, this volume will be widely sought after. Still it strikes us that he would be the wiser man who should purchase monographs on the several subjects discussed. On all of them we have standard and comprehensive treatises. The single volume is cheaper, no doubt, and for this reason will be the more popular with the masses of the profession. The one before us is issued in a form similar to the first. A third volume is soon to follow and with it the series will be completed.

Hagan's Guide to the Examination of Patients and the Diagnosis of Disease.*

This work is intended to meet the needs of medical students before attending clinics. It points out a line of conduct suitable for the student at the bedside, calls attention to the manipulations required there and describes the principal phenomena by which the presence of a certain disease is recognized. All superfluous matter is omitted, whether it be rare affections or unusual symptoms. For a knowledge of these the

*A GUIDE TO THE CLINICAL EXAMINATION OF PATIENTS AND THE DIAGNOSIS OF DISEASE. By Richard Hagan, M. D. Translated by G. W. Gramm, M. D. Boericke & Tafel, New York. 1881. Pp. 288; Cloth.

student is referred to the regular text books. The preparation of the work is manifestly from the mind of a good clinical teacher, who also had not forgotten how to put himself in the place of the pupil. It can scarcely fail to do good service to such as use it properly.

The Heart and Its Function.*

This little health primer is one of the best we have seen. While it contains nothing new to a well posted physician, the reading of it will benefit all, physician or layman.

Edward's on the Treatment of Constipation without the Use of Drugs.†

This work is an effort to teach common people how to keep the bowels open without constant dosage. Our only fear is that but few people will read it and fewer still follow its directions.

Flint's Text Book on Physiology.‡

The third corrected and revised edition of this work is before us. In the amount of matter that it contains, in the aptness and beauty of its illustrations, in the variety of experiments described, in the completeness with which it discusses the whole field of human physiology, this work surpasses any text book in the English language. Among the changes made are the adoption of the views of Bowman regarding the functions of the Malpighian bodies of the kidney. The section on animal heat has been rewritten to give expression to the author's latest views. Boll's discovery of retinal red has been introduced, also a description of the cerebral convolutions. We could have wished that a still more extensive revision had been made. But after all, in the respects alluded to above, this work is quite unique in the list of works now placed before the medical student as aids to the study of human physiology. It is handsomely printed

*HEALTH PRIMER. *The Heart and its Function.* New York: D. Appleton & Co. 1881. Pp. 95. Cloth; price 40 cents.

†CONSTIPATION PLAINLY TREATED AND WITHOUT THE USE OF DRUGS. By J. F. Edwards, M. D. Philadelphia: Presley Blakiston. 1881. Pp. 72. Cloth; price, 75 cents.

‡A TEXT BOOK ON HUMAN PHYSIOLOGY designed for the Use of Students and Practitioners of Medicine. By Austin Flint, Jr., M. D. Illustrated by three lithographic plates and three hundred and fifteen wood cuts. Third edition, revised and corrected. New York: D. Appleton & Co. 1881. Pp. 978. Cloth; price \$6.00.

on the best of paper in such a manner as to do credit even to the famous Appleton publishing house.

Abstracts from Exchanges.

Prepared by Judson Bradley, M. D., Albert B. Lyons, M. D. and E. A. Chapoton, M. D.

Practical Medicine.

OPTIC NEURITIS IN INTER-CRANIAL DISEASE.—Dr. Hughlings Jackson, (*Brit. Med. Jour.*, Mar. 26, 1881,) gives the following comprehensive statement of our knowledge of the general bearing of inter-cranial disease. His paper is divided into five sections: (1) Optic neuritis from the ophthalmoscopic point of view; (2) Clinical facts in connection with optic neuritis; (3) Association of optic neuritis with other symptoms; (4) On the diagnostic and non-diagnostic value of optic neuritis; (5) Various hypotheses as to the mode of production of changes in the optic discs by inter-cranial adventitious products.

1. *Optic Neuritis Ophthalmoscopically.*—Optic neuritis, although a continuous process, varies exceedingly in degree at different times, which has caused many young ophthalmologists to believe that there are several varieties of the condition. There are distinguished ophthalmoscopists who make a distinction between the "choked disc" and "descending neuritis;" but some of them admit that it is often difficult to tell one from the other, and that there may be mixed conditions. He himself believed that there is but one variety of optic neuritis from inter-cranial disease; but in cases where the possible distinction was important, he would, to avoid begging the question, use the general term "swelling of the disc." Swelling of the disc may occur in several different affections; *e. g.*, in some cases of Bright's disease, usually the granular kidney; in most cases of inter-cranial tumor; in some cases of meningitis; and it is worthy of special note that it is found in some cases where the symptoms point to inter-cranial disease, but where no gross lesion can be discovered *post mortem*. Hulke, Soelberg Wells, and others, speak of a recoverable optic neuritis in young women suffering from uterine derangement. Hutchinson has pointed out that swelling of the disc occurs in some cases of lead-poisoning—the appear-

ances in one case being similar to those seen in optic neuritis from inter-cranial tumor.

Bright's Disease.—In many cases, there is no difficulty in making a diagnosis of Bright's disease from the ophthalmoscopic appearances alone; but, in a few cases, the appearances of the fundus are exactly like those seen in some cases of inter-cranial tumor without Bright's disease; for in each there may or may not be the well-known white streaks in the region of the macula; in each there may be great swelling of the discs, and blotches, not only streaks, of blood. In each, the general symptoms may be the same, viz., intense headache and vomiting. The general course of the disease may be the same. A distinction can in such cases only be drawn by an examination, on the one hand, of the urine and vascular system; and, on the other, for certain localizing symptoms. Such symptoms are often absent in the early stages of the disease; and one of the localizing symptoms, hemiplegia, with or without apoplexy, might occur in either disease. The most trustworthy localizing symptoms leading to the diagnosis of tumor are such as convulsions beginning unilaterally, and paralysis of cranial nerves. Unilateral convulsions may, however, co-exist with Bright's disease. In cases where Bright's disease is associated with hemiplegia, and where the optic discs present all the appearances seen in connection with cerebral tumor, he would ask whether there are any means of saying, by reference to the ophthalmoscopic appearances, whether the neuritis is an outcome of Bright's disease, or is secondary to the clot, which the hemiplegia implies? He believed he had never seen neuritis resulting from a clot in the brain, although he had seen the two things coincident. He would ask further, what is the pathogenesis of the changes when no local organic disease is found in the brain *post mortem*? It had been suggested that the changes in Bright's disease are directly consequent on changes in the brain occurring with kidney disease.

Meningitis.—He would, in this connection, speak of three kinds of meningitis: (1) *Tubercular Meningitis.*—As a rule, optic

neuritis comes on at a time when the diagnosis has been made from other symptoms; though occasionally it is useful in helping to a diagnosis of some acute intra-cranial disease. The swelling is slight, and the disc

succulent looking. It is like the earliest stage of optic neuritis from intra-cranial tumor. (2) *Traumatic Meningitis.* (3) *Cerebro-spinal Meningitis.* He knew nothing of the occurrence of optic neuritis in these two diseases; but Dr. Stephen Mackenzie had seen optic neuritis in two cases of the latter disease. As intra-cranial tumor might produce an acute, perhaps a fatal illness, not distinguishable by its symptoms from meningitis, tubercular or traumatic, it was important to know whether there were any ophthalmoscopic signs which might be trusted in the diagnosis; apart, of course, from the presence of tubercle in the choroid. He himself knew of none, beyond the degree and inferred long duration of the stages. What signs, if any, enable us to distinguish between swelling of the discs in the three kinds of meningitis? What is the frequency of occurrence of changes in the discs, and in their appearance in traumatic meningitis, and in the allied meningitis from ear disease? In some of these cases, there is pyæmia as well. When swelling of the discs is found, is it part of, or a result of, the meningitis? or is it ever a result of pyæmic blocking of the veins? Is there thrombosis of the sinuses in any of these cases? It is well known that sight may be good in severe neuritis, and that the neuritis, with or without treatment, may pass off. Do the cases in which the sight is unaffected differ essentially from the cases in which it is defective or lost? He believed that there was no difference. Some say that the former are cases of "choked disc," and the latter of "optic neuritis." Is this an inference from the state of the vision, or is it the distinction to be made by the ophthalmoscopic appearances? He himself knew of no difference in the kind of disc seen in cases in which sight is good, and those in which it is defective or lost; the difference being, in his opinion, one stage of changes only. Optic neuritis may pass off under treatment, leaving the sight good, even where there has been complete blindness. It may be important in certain cases to say whether there has been neuritis at a former period. He would ask, what are the ophthalmoscopic signs by which we may ascertain that there has been a former neuritis? He had seen many cases in which the relics of past well marked neuritis were very slight, and some in which, were he seeing the patient for the first time, he

should not dare to say that there was anything abnormal. Not unfrequently, patients come to physicians for such a nervous symptom as localized convulsion, giving a more or less vague account of some illness, with headache and vomiting, months before. The discovery of relics of past neuritis might help us in determining whether the symptom for which we are consulted depends on gross organic brain disease or not. Is it possible to distinguish traces of swelling of the discs caused by brain disease, from those left by swelling of the discs caused by the prolonged use of the eyes in some cases of hypermetropia, as pointed out by Mr. Couper? Unfortunately, however, the discs do not always go back to health after neuritis, but the condition passes on to atrophy, partial or total. In most cases of atrophy, we can tell by the ophthalmoscope whether the atrophy is the sequel of some neuritis, although it may not be possible to say that there has been what is commonly called "optic neuritis." He would ask, what are the ophthalmoscopic signs to be relied on in the diagnosis between the atrophy after neuritis and atrophy in locomotor ataxy, disseminated sclerosis, etc.? The signs generally given as diagnostic of past neuritis are, veiling of the lamina cribrosa, white marks along the vessels, ill-margined disc, irregularity of veins. Are such signs always present in very long standing cases of post-neuritic atrophy?

2. *Clinical Facts.*—Optic neuritis is usually double—in physicians' practice nearly always. He had seen two cases of intracranial disease in patients who had uniocular neuritis. In each case there was a tumor of the opposite cerebral hemisphere; and, in each, hemiplegia of the same side as the neuritis. The eyes from one of the cases were examined microscopically by Dr. Pagenstecher, the left eye being found normal, as it had been declared during life. A single tumor of the brain, if it produces optic neuritis, nearly always produces double optic neuritis; the neuritis beginning nearly at the same time on the two sides, although it may be unequal in degree; and there is often great difference in the sight. What does uniocular optic neuritis signify? Has it been found in cases of tumor of one cerebral hemisphere which had not produced any localizing symptoms? Does uniocular neuritis

result from pressure or involvement of the optic nerve? Does it ever result from local organic disease in the cerebellum? Can we distinguish ophthalmoscopically between uniocular neuritis resulting from tumor or aneurism in the orbit or near the cavernous sinus inside the cranium, and the uniocular neuritis arising from disease of the great centers? Is there anything in the degree of the swelling to be relied on? The diagnostic value of optic neuritis is not different, whether sight be good or lost. In more than half the cases, there is no defect of sight. When sight fails, at what stage does it fail? Does sight in some cases fail before any neuritis is discernable; and, if so, are these cases of pressure on the optic nerves? Such patients might be supposed to be hysterical; but he had seen an instance of this kind, and Mr. Hutchinson has mentioned cases of similar bearing. In some cases of optic neuritis, the sight fails for a time totally or partially, although at most times it is good. The patient may be able to read the smallest type, and yet, occasionally becomes quite blind. What do these sudden and temporary failures of sight in neuritis with good vision signify? Do they occur most often when the disease is of the cerebral hemisphere? Do sudden temporary total failures of sight, or—the functionally opposite thing—projections of color, sometimes precede neuritis? Excluding cases of migraine, he should fear they heralded neuritis, if there were intense pain in the head. In some cases sight, having been for some time good in neuritis, may fail very rapidly—in a few hours, the failure being permanent. Such failure may be ascribed by patients to the instillation of atropine, to galvanism, to blisters. Hence the importance of recognizing such occurrence. He would ask, do the ophthalmoscopic appearances change much at the time when the rapid failure occurs? He had hitherto failed to recognize any such change. What is the significance of the rapid failure?

3. *Association of Optic Neuritis with other Symptoms.*—Good general health goes practically for little in our estimation of the gravity of the situation in many cases of optic neuritis, even when sight is good. We see healthy looking, robust children and adults, who have double optic neuritis with good sight, who may nevertheless have intra-

cranial tumor. It is safest to take good general health with optic neuritis as going for nothing in young people; they may have vascular gliomata, and if so, are thus always on the brink of death. Symptoms may be divided into two groups—(1) localizing, (2) non-localizing.

Optic Neuritis with Non-localizing Symptoms.—In most cases optic neuritis goes with headache, and often with vomiting; all three belong to one clinical group. Very often these symptoms come first, or are the sole symptoms up to the end of the case. Sometimes the headache precedes the neuritis, and very often indeed it precedes failure of vision. The three symptoms point to local gross organic disease within the cranium, but do not help us to determine the particular seat of the disease. The headache is intense; often it is paroxysmal, the patient being in the intervals apparently quite well. The vomiting is without apparent cause, and bile is often brought up. Hence, the frequent diagnosis of liver derangement, and in acute cases the occasional diagnosis of bilious or gastric fever. Sometimes, if the patient be a woman, she is said to be hysterical until some unmistakable intra-cranial symptom, such as convulsion, suddenly alters the diagnosis. The routine use of the ophthalmoscope would save us from many of these errors in diagnosis. There is sometimes an acute illness as our first evidence of tumor. But there are all varieties of mode of onset upwards, from great chronicity with slight accentuation of symptoms. It is very important to bear in mind that optic neuritis may occur without any headache, and without vomiting, or that the headache may be slight and vomiting absent. In cases where a patient has had either an acute or a chronic disease, from which he has recovered, but which was associated with optic neuritis, the question arises: What was the nature of the disease; was it an attack of meningitis, or was it a case of local gross organic disease, such as tumor? He himself inclines to the latter belief. He felt sure that facts show that even complete recovery with good sight does not negative local gross organic disease still present within the cranium. This is strikingly true of some cases of syphilitic tumor; the symptoms pass off under treatment, but the patient may come again and again for the same

localizing symptom, showing disease persisting in one place. He would therefore ask: Have traces of meningitis been found after such recoveries when patients have died later on of some other disease? Prompt recovery from such conditions under anti-syphilitic treatment is not, as a matter of fact, to be confidently explained on the supposition that the case was one of syphilitic brain disease. From any one or from all the three symptoms, occurring either acutely or chronically, we cannot be certain of tumor; but in a chronic case we are, in most cases, right in predicting it. Suppose we were to feel certain of the existence of tumor, unless the headache were persistently one-sided, we should have, from the symptoms mentioned, not a particle of evidence, so far as he knew, as to the locality of the tumor beyond the fact that it was intra-cranial. Hence, he called these symptoms non-localizing. He would ask: Are there any means of ascertaining the position of local intra-cranial disease by any peculiarities in the neuritis, headache and vomiting? He would ask further: Does the degree of pain and vomiting depend especially on the acuteness of the case, or on localization in grey matter, rather than in white; or has it relationship with both these conditions?

Optic Neuritis with Localizing Symptoms.—These symptoms are of no rational value in the diagnosis of the presence of organic disease, although this may have some empirical value. They point to position alone. He would ask: Are not optic neuritis and headache often absent, or of late occurrence, in cases of hemiplegia developing very slowly? Hemiplegia having this mode of onset is, by itself, strong evidence of cerebral tumor.

4. *The Diagnostic and Non-diagnostic Value of Optic Neuritis.*—Optic neuritis, although often found with disease of the cerebrum or cerebellum, does not occur from mere destruction of any particular part of the encephalon. It mostly occurs with intra-cranial tumor, or some other adventitious product. The mass may be in any part of the encephalon, anterior, middle or posterior lobe of the cerebrum, the pons varolii, the right, left or middle lobe of the cerebellum, or at the base of the brain. He had not yet seen it in tumor of the medulla oblongata, of which disease, however, he had only seen one

case. In the next place, it is equally true that it may be absent in connection with tumors of many parts of the brain. A further fact is, that optic neuritis may occur late in cases of cerebral tumor. Again, optic neuritis may appear late and pass off, the patient dying ultimately of the tumor. Optic neuritis exceedingly rarely occurs in cases of extensive destruction of brain by softening or clot; hence, it is rare with complete aphasia, and with ordinary hemiplegia or both together. Broadbent and Stephen Mackenzie have, however, each recorded a case of double optic neuritis in connection with local softening from embolism or thrombosis. All these facts, taken in conjunction with the fact already mentioned, that optic neuritis may be present without any impairment of vision, point to the conclusion that the neuritis does not depend on destruction of any part of the nervous centres. Nevertheless, there is a relation of some kind betwixt the tumor or other gross product and the neuritis. The relation is indirect; the tumor produces neuritis secondarily. There is no difference in the neuritis produced by tumors of different kinds, by abscess, by cyst or by almost any other foreign body in the brain. This statement does not imply that some adventitious products may not more often produce optic neuritis, or produce it sooner, or produce a greater degree of it more rapidly than others. It is believed by some that vascular gliomata produce more headache, and more paroxysmal headache, and altogether a more acute disturbance than an indolent mass of tubercle. Optic neuritis, as already remarked, very rarely occurs from clot in the brain. It is important to emphasize the distinction between the development of neuritis from the presence of a foreign body and the loss of sight due to a destructive lesion, such, for instance, as is seen in hemiopia. In cases of hemiopia, with rare exceptions, there is no atrophy of the discs, nor any other change in the fundus. In most cases of hemiopia, in physicians' practice, the lesion is presumably central; for there is nearly always hemiplegia on the side of the blind half-fields. The condition of sight in hemiopia is very different from the defect of sight ensuing on changes induced in the optic nerves or their centres, by some "foreign body" in the brain; strikingly different when we note that sight may not be affected during such changes. Occasionally hemiopia and neuritis are present

together, and the difference in their several modes of affecting vision is then most strikingly shown; for the neuritis may, for a time, add nothing to the defect of sight (hemiopia) dependent upon the destructive nature of the lesion. All the evidence points to the conclusion that optic neuritis, in connection with intra-cranial adventitious products, is to be looked on as resulting secondarily from such products in the character, common to them all, of foreign bodies. The question next arises, what is the secondary process? There is the hypothesis of Grafe, that one variety of optic neuritis, or of swelling of the disc, is produced by raised intra-cranial pressure—the choked disc of Clifford Allbutt. Against this hypothesis is the fact that the tumor or other adventitious product may be very small. A small tumor may produce just the same kind, and probably the same degree of neuritis, as a mass weighing many ounces. Again, swelling of the disc is not found in cases of vast cerebral hemorrhage when the intra-cranial pressure is suddenly greatly increased, and it may be absent in the case of large cerebral tumors. Next, there is the hypothesis of Schmidt, which ascribes some cases of swollen disc to distension of the optic nerve-sheath. The evidence in support of this doctrine is at least conflicting. There is the hypothesis of reflex vaso-motor action. He (Dr. Jackson) favored this theory in a modified form, and he quoted Pagenstecher, who writes of it: "The irritation conveyed through the nerve-track of the sympathetic to the disc, induces the changes in the nerve-fibres, the hyperæmia, and even the development of new vessels, and in this manner is brought about a swelling and obfuscation of the disc and of the adjacent parts of the retina."

Treatment.—In one regard, it may seem absurd to speak of the treatment of optic neuritis. We treat the patient, and the local internal disease which we suppose to have caused it. If that local internal disease be syphilitic, we may hope, supposing the changes to be recent, to clear them away by mercurial inunction and iodide of potassium. Supposing, however, the intra-cranial disease be a non-syphilitic tumor, according to current opinions we can do nothing for it. We can, however, even in these cases, endeavor to do something for the neuritis. It is obvious that the best time for treatment is when the neuritis is in its earliest stage, in

the præ-amaurotic stage, although it is certain that recovery may follow treatment of neuritis when sight is almost lost. Dr. Jackson himself always gave iodide of potassium, whether he suspected syphilis or not, and frequently prescribed mercurial inunction in addition. He knew of no treatment which did any good in atrophy, partial or total, after neuritis.

NITRATE OF PILOCARPINE FOR FETID PERSPIRATION OF THE FEET.—Three cases of fetid perspiration of the feet are reported cured by Dr. Armingaud, in a paper read before the Académie de Médecine, on January 25th, 1881 (*Gazette Hebdomadaire de Med. et de Chirurg.*, No. 7, 1881—*Int. Jour. of Med. and Surg.*, March 29, 1881). In the first case, the perspiration and offensive odor of the feet ceased on the first day, five or six hours after the injection of 2 ctm. of the remedy under the skin of the left shoulder, which produced marked systemic effects. The same dose was repeated on the second day, and the perspiration ceased for three days. On the fifth and sixth days, he injected 3 cgm., on account of a partial return of the symptoms, and obtained a suppression of the perspiration and bad odor from the feet for nearly four days. The systemic effects were somewhat violent. On the tenth, eleventh, fourteenth and sixteenth days, he repeated the injection of 3 cgm. with a similar result in each case, and had no return of the morbid secretion thereafter. In the second and third cases, he first tried infusion of jaborandi, for the reason that the sialagogue effects of the pilocarpine seem to predominate over the sudorific, he obtaining abundant salivation within five minutes of the injection, with very little perspiration; but the jaborandi failed, in both instances, to accomplish the object sought. But the injection of the nitrate of pilocarpine in a similar manner to the case already described, produced the same results, viz., a suppression and final total cessation of the offensive secretions of the feet, up to time of the report, about nine months after the first case and more than six months after the last case was cured. The author calls especial attention to the fact that no symptoms followed the treatment, which would render it desirable to re-establish the perspiration of the feet, a marked difference from the effect of atropine and other remedies by which the secretions were

checked in former treatment, cerebral congestion and cephalalgia persisting in the last mentioned cases until the morbid secretion was re-established. Acknowledging that the above cases are not sufficient to establish the reputation of the remedy as a specific, he concludes that the remedy seems to have a curative action for this pathological condition, and without any bad effect upon the general system, the effect seeming to depend upon the sialagogue properties of the pilocarpine, from the difference in the result obtained when jaborandi was used.

GOUT—ITS PATHOLOGY AND TREATMENT.—Dr. Austin Meldon, (*Brit. Med. Jour.* Mar. 26, 1881,) from an interesting paper, draws the following conclusions: (1) The presence of uric acid and soda in the blood is not the sole cause of gout. (2) Want of exercise and animal diet will produce an accumulation of uric acid in the blood. (3) Uric acid and soda must exist in the blood before the disease can be produced. (4) There must be depression of the nervous system to cause an attack of gout. (5) Depression of the nervous system causes an union between uric acid and soda, forming urate of soda. (6) When an attack of gout has passed away, it does not necessarily follow that the uric acid has disappeared from the blood. (7) Uric acid may exist in the blood in considerable quantities, and for any length of time, without causing gout. (8) The use of nerve-tonics, as quinine, strychnia, and caffeine, and such-like, as well as the inhaling of oxygen, and the use of electricity, are of much service in the treatment of the disease.

ABNORMAL MUSCULAR DEVELOPMENT.—Dr. R. W. Corwin, of Chicago (*Physician and Surgeon*, April, 1881), held a post-mortem over a very muscular Bohemian, killed by accident last October, and found in the right pectoral region a muscle about seven inches long, two and one-fourth inches wide and one-third of an inch thick, lying nearly at right angles to the ribs, having its origin by aponeurotic fibres from the lower border of the sternal end of the second rib (some of the fibres piercing the pectoralis major), and its insertion by an aponeurosis in the lower anterior border of the pectoralis major. No trace of a similar muscle could be found on the opposite side.

ILL EFFECTS OF TOBACCO USING.—Dr. W. T. Dodge, Marlette, Mich. (*Physician and*

Surgeon, April, 1881), reports a case of irregularity and debility of heart's action, indigestion and dizziness, in a man who used tobacco freely. The tobacco was stopped, and in two weeks the heart's action was regular, the patient was feeling much better and he soon gained in weight.

GALVANO-CAUTERY IN CHRONIC NASAL CATARRH.—Dr. Wm. C. Pipein (*The St. Louis Medical and Surgical Journal* for January, 1881): In treating chronic nasal catarrh where there is an hypertrophy of the mucous membrane over the turbinated bones, I have used the method of alternate plugging of the nostrils with a wad tampon; have applied, in powder and ointment, iodoform to the anterior and posterior nares; have used a saturated solution of nitrate of silver to the points of contact, and am satisfied that no amount of plugging the nostrils, spraying, vapors, ointments or the douche, will permanently cure chronic nasal catarrh. Evulsion by forceps or the use of Allen's file knife are too painful, and patients are unwilling to submit to these operations without an anæsthetic. In the electro-cautery, we have an apparatus that is easily handled, does its work quickly, produces less pain, cures permanently, the cures being few in which a second operation becomes necessary. The greatest benefit is derived from its use in cases in which there is hypertrophy of its mucous membrane, over the inferior and middle turbinated bones; reflection of the septum to right or left should not be mistaken for hypertrophy. The partial or total destruction of this hypertrophied mucous membrane, the cicatricial contraction of the tissues from the heated wires deprives it of its erectile nature, removing the obstruction, and allows the free passage of air through the nostril. The doctor gives a series of cases in which he had tried the usual methods of treatment for months at a time, and finally resorted to the cautery and was gratified at the rapidity and permanence of the cure effected.

IODINE IN THE TREATMENT OF DIPHTHERIA.—Dr. H. P. Gauthier (*Chicago Medical Review*, February 20, 1881), says he was led to use iodine in an epidemic of diphtheria that occurred at Natchez, Miss., during his residence there. During the epidemic, he treated successfully one hundred cases. After his return to Illinois, he treated some fifty

cases, all resulting favorably, and during his residence in Minnesota has treated about one hundred and fifty cases, making a total of three hundred cases in which the iodine was used, and in only two cases did death occur. Previous to the adoption of treatment by iodine, he claims to have lost at least one-third of his cases. He gives tincture iodine in ten or twelve drop doses every hour, well diluted with water, as long as the fever lasts, subsequently reducing the frequency of the dose to every two or three hours. The remedy is also applied twice daily, locally. Bread and starchy articles of diet are used in abundance.

CROUPOUS PNEUMONIA AS AN INFECTIOUS DISEASE.—Dr. E. Saunders (*Medical Record*), makes the following comparisons between the characteristics of infectious diseases and croupous pneumonia:

1. Infrequency of occurrence and number attacked. That is, acute infectious diseases do not prevail extensively some years, and when they appear the proportion affected varies very greatly. Pneumonia has occurred only rarely in some years, and it has at times prevailed epidemically in cloisters, prisons, barracks, etc. Special reference was then made to the occurrence of the disease as an epidemic. Again, abortive cases of pneumonia—the occurrence of such cases being acknowledged—indicate their infectious character.

2. Acute infectious diseases cannot be produced experimentally; neither can croupous pneumonia.

3. Acute infectious diseases have a stage of incubation. This is not well understood in croupous pneumonia.

4. Acute infectious diseases have a premonitory stage. So does croupous pneumonia.

5. Acute infectious diseases pursue a uniform and classical course. There is no disease which has so uniform and classical a course as lobar (croupous) pneumonia, and local symptoms remain as they do in typhoid fever, etc.

6. In acute infectious diseases, there is absence of a direct relation between the constitutional symptoms and the local lesions. So it is with croupous pneumonia.

7. In acute infectious diseases, certain complications appear in certain epidemics and are absent in others. The complications

of croupous pneumonia vary in different years.

8. Acute infectious diseases are self-limited. So is croupous pneumonia in a marked degree, and to no other disease with greater propriety can the term self-limited be applied.

9. The rate of mortality varies in each epidemic of an acute infectious disease.

10. In acute infectious diseases, there is a localization of morbid changes in some organ or set of organs. In croupous pneumonia, the localization is in the pulmonary structures, and consolidation of lung tissue is the essential lesion of the disease.

11. In acute infectious diseases, the use of remedies against the disease itself is useless.

12. The great characteristic of acute infectious diseases is their specific nature. The producing element for each member of the class is a specific poison, acting upon and through the blood.

The main conclusion reached was that croupous pneumonia is an acute infectious disease, dependent upon the introduction into the system of a specific poison; that it belongs to the miasmatic contagious group, and that in all probability the specific poison is taken into the body by inhalation.

ETIOLOGY OF VERTIGO.—Mr. P. McBride (*Med. Times and Gazette—London Medical Record*), from a careful study of the above subject, concludes: (1) That there is a cerebral area or tract, stimulation of which produces vertigo. (2) That this area may be stimulated by impressions—ocular, auditory, sensory or visceral—as well as by cerebral changes, and is in intimate physiological relation with the vomiting and oculo-motor centres. That is to say, impressions conveyed to one of these centres tends to involve the others, by overflow of nerve energy. (3) That excessive stimulation of the vertiginous area will produce an overflow of nerve impulse to various motor centres, and probably unconsciousness. (4) That inasmuch as the phenomena of its excessive stimulation (as in rotated men and animals, Menière's disease, etc.) are represented by a definite train of symptoms, we may infer that overflow of nerve-impulse usually proceeds in the same direction, or, in other words, involves the same centres—first, those which are intimately connected with it, then those which are more remote. (5) Possibly the same process

of reasoning may be applied to death from shock, epileptic attacks, convulsions and some of the other so-called explosive neuroses. (6) That in typical cases, ocular, stomachic and auditory vertigo may be distinguished from one another by the centre first involved. Thus, we should expect that stomach vertigo would be preceded by nausea, if not by vomiting; that ocular vertigo should be caused by changes in the motor apparatus in the eyeball; but that in auditory vertigo the giddiness is the first and may be the only symptom. (7) That sea-sickness is probable due to stomach irritation; for here, as a rule, we have vomiting, and afterwards vertigo, which, however, is by no means a constant accompaniment.

Practice of Medicine.

ALCOHOL—CLINICAL PHASES OF POISONING.—Dr. Frank Woodbury (*Philadelphia Medical Times*, April 9, 1881,) makes the following points on this subject: (1) Acute alcoholic poisoning, manifesting itself in the forms of coma, convulsions and mania-a-potu, is characteristic of the physiological action of alcohol upon a system unaccustomed to its use. Its treatment, in cases of coma and convulsions, is like that of the other narcotic poisons producing paralysis of the respiration, but in mania powerful cerebral sedatives are required. During the after treatment alcohol is not necessary, but on the contrary, every encouragement, both by precept and by prescription, should be given the patient to adopt total abstinence as his only chance of safety. (2) Chronic alcoholic poisoning, exhibiting itself in the form of horrors, vigilance, delirium tremens or melancholia, on the contrary bespeaks the existence of a depressed condition of the vital powers due to saturation of the system with alcohol and consequent degenerative changes. Such unfortunate cases, suffering from what might be called an alcoholic diathesis, require careful nursing, a supporting treatment and the continuance of stimulants, which to them have become both food and drink.

Physiology.

THE PHYSIOLOGY OF CLIMATE, SEASON AND ORDINARY WEATHER CHANGES.—Dr. Alex. Rattray (*Med. Times*, April 9, 1881) summarizes the study of this subject thus: the following are the more important of the facts and inferences resulting from change

of climate, season or ordinary weather-fluctuations, when the thermometric rise is from 42° to 83° degrees Fahr., or the reverse.

1. An increased spirometric capacity of the lungs to an average of 12½ per cent. or 31 cubic inches, equivalent to a reduced vascularity by 17.88 fluid ounces.

2. A diminished respiratory function, as shown by a slower respiration to the extent of 8.9 per cent., which combined phenomena diminish the amount of air consumed daily by 36.85 cubic feet, or 18.43 per cent.; of carbon excreted daily by the same percentage, or 1.843 ounces, and of watery vapor excreted by the same percentage or 4 fluid ounces, nearly.

3. A diminished pulse by two and a half beats per minute, and perhaps a reduction in its force also.

4. An increased body temperature by from 1° to 2° Fahr.

5. A diminished urinary secretion by 17½ per cent.

6. An increased perspiratory secretion to the extent of 22.38 per cent. and perhaps a correspondingly increased elimination of carbonic acid by the skin.

7. A diminished hepatic secretion to the extent of 0.15 per cent.

8. A diminished weight of the body in the majority and a like impairment of the physique, often to the extent of 64 per cent. and average of five pounds.

9. Retarded growth in the majority of youths.

10. A correspondingly increased supply of blood or vascularity of certain of the involved organs, and a similarly diminished turgescence of others, according as their function is increased or diminished.

11. Phenomena of an exactly reverse kind and to a like extent, on making an opposite change of temperature—namely, from heat to cold.

12. A corresponding fluctuation, both in vascularity and function of corresponding organs after each successive change of temperature.

13. The occurrence of similar phenomena as a result of change of *season*, and also of the ordinary *weather* fluctuations prevalent everywhere.

14. The occurrence of like results and from a like cause, from change of *altitude*.

15. The dependence of one and all of these phenomena on a definite cause, which

may be termed the *climatic law* of the circulation, by which internal organs are congested at the expense of external ones under the influence of cold, and external ones congested at the expense of internal ones under heat.

16. The greater extent of these phenomena in adults and persons of large frame, and that for an obvious reason, the greater bulk of the blood.

17. The existence of a certain range in this redistribution of the blood and the resulting functional and morphological changes, which varies according to size, age, sex and individual peculiarities, and beyond which they become pathological.

18. This physiological rise and fall especially when great, as during zonal migrations, tend to increase both the ordinary and the vicarious action of the different involved organs.

19. The climatic law and its results affect the white and the black race, and therefore, presumably, every other race and variety of mankind, though each, doubtless, has its physiological differences.

20. They likewise manifest themselves in all latitudes and climates, in every change of season and even during local variations in the weather.

21. In all cases, whether from climate, season or weather changes, the primary and essential cause of these physiological phenomena is *change of temperature*.

22. As the aerial temperature is everywhere and at all times varying, so these physiological phenomena are not only of universal occurrence, but also in more or less constant progress in every individual over the entire face of the globe.

23. Temperature being their exciting cause, they necessarily vary with this in extent, and therefore may alter as greatly and much more speedily within the twenty-four hours of the day than they do during a more slowly accomplished change of season or zone.

24. Their ultimate object in health is hygienic.

25. Seeing that they are as evident in morbid as in healthy states of the frame, they may thus act according to circumstances, as therapeutic agents or the reverse.

DISSOLVED HÆMOGLOBIN IN THE CIRCULATING BLOOD.—Dorpat (dissertation, London

Medical Record,) summarizes an elaborate investigation of this subject thus: (1) The transition from the frozen to the fluid state increases the decomposition of most of the blood-corpuscles, and favors the development of fibrin-ferments. (2) It accelerates the fermentation process in itself. (3) The transition exercises no influence on the free fibrin-ferment. (4) A great portion of the active ferment is either destroyed or made ineffective by the process of coagulation. (5) The transition from the frozen to the fluid state at the same time makes the serum less effective. (6) Hæmoglobin also increases the action of the fibrin-ferment. (7) The dissolved hæmoglobin acts in this respect more effectively than that inclosed in intact blood-corpuscles; and that which has been frozen and thawed, or dissolved in ether, acts more effectively than that simply dissolved in water. (8) Hæmoglobin gradually loses this character by exposure to the air. (9) The fibrin-ferment becomes gradually ineffective when left in contact with hæmoglobin. (10) Hæmoglobin, simply dissolved in water, produces thrombosis; but not in so high a degree as that which has been repeatedly frozen and thawed. (11) This property of hæmoglobin disappears gradually outside the organism. (12) The same thing applies to the hæmoglobin inclosed by the intact blood-corpuscles. (13) The effect in producing thrombosis of fresh intact blood-corpuscles of the horse, is—if present at all—very small. (14) Horse-hæmoglobin once crystallized is quite ineffective. Sachsendahl could not confirm the observation made by Birk, that the fermentation contents of circulating and of dead blood stand in reversed proportion to one another. The fermenting contents of the blood of the same animal, examined at intervals of a few hours, showed no important variation. Concerning the character of the action of hæmoglobin, the author arrived, through his experiments, at the conclusion that it increases enormously the quantity of the fibrin-ferment in the circulating blood, and thus produces coagulation. Like ferment-solution, the injection of small doses of hæmoglobin—which do not act at once fatally—causes a temporary rise in the temperature, which is sometimes considerable; it causes, at the same time, an increase, greater or smaller, of the ferment contents in the circulating blood, and a dim-

inution in the defibrined blood. The diminution in the quantity of the fibrin secreted from the blood goes hand in hand with these changes. The methods employed were the same as those of Birk and Edelberg.

Action of Medicines.

EFFECT OF TANNIN ON THE ANIMAL ORGANISM.—An elaborate *résumé* of investigations upon this point is reported by Dr. Le Lurie, for *Virchow's Arch.* LXXXI, I, p. 74, 1880; (*Schmidt's Jahrbucher*, 1880—*International Journal of Medicine and Surgery*, Feb. 12, 1881.) He says that the power of tannin to precipitate albumen, was discovered by Mitscherlich in 1843. The doubts entertained as to its absorbent and systemic effect because it was supposed to be precipitated in the stomach or transformed into gallic acid, are shown to be without foundation; (a) because tannin ceases to precipitate albumen in a solution having the acidity of the gastric juice; and (b) because the former supposition that tannin was converted into gallic acid and sugar, by the presence of diluted sulphuric acid is proven by recent experiments to be fallacious, and the author claims that the officinal tannin always contains gallic acid and sugar, probably extracted from the nutgalls. Lewin experimented with purified tannin and found that while neutral it would produce a precipitate with albuminoids, insoluble in water but soluble in an acid or alkaline fluid, and that it is possible to transform albuminoids into peptones by artificial digestion in spite of the presence of tannin; also, that this fact is not due to transformation of tannin into gallic acid by the acidity of the digestive fluid. The antiseptic properties of tannin are probably due to the extraction of water from the septic organism, destroying their power of existence, and its deodorizing properties to the union of gases, (particularly the ammoniacal) with the tannin. The fact that solutions of tannin will mould is now known not to disprove the above mentioned properties, since it is proven that the power to prevent mould has no direct relation to the power to prevent septic changes.

The effect of tannin on the organism seems to be to produce a condition similar to *rigor mortis*, probably due to the power of tannin to absorb oxygen; L. found that frogs' muscles deprived of oxygen assumed a similar

condition. Some observers observed contraction, others dilatation of the blood vessels from the effect of tannin. L. concludes that the dilatation, when it occurs, is always due to stasis. The immediate effect on the kidneys is to diminish the flow of urine, but the ultimate effect is to considerably increase the secretion. It seems to be wholly eliminated by the kidneys—at least it has not been detected in any excretion other than the urine.

The author proposes that it be administered in one of the following forms: (a) as a tannin albuminate, with excess of albumen, (which keep indefinitely;) (b) as an alkali-tannate, produced by addition of carbonate of soda to a solution in water; (c) as a tannin-albuminate, redissolved by carbonate of soda. He gives preference to the latter preparation.

Ophthalmology.

GLAUCOMA, ITS PATHOLOGY.—The *British Medical Journal*, March 19, 1881, gives the following as a summary of our present knowledge of the above subject. After a careful consideration of the evidence, we think the following facts may be taken as proved: (1) The intra-ocular fluid has its sole channel of escape by the angle of the anterior chamber; (2) There is a normal current of fluid from the vitreous to the aqueous chambers through the suspensory ligament; (3) A very slight excess of pressure in the posterior chamber causes obstruction to the outflow of fluid by compressing the ciliary processes against the iris, so as to close the angle of the anterior chamber; (4) The angle of the anterior chamber in glaucoma is almost invariably found closed, or traces of its former closure may be observed; (5) The ciliary muscle is frequently atrophied; (6) The blood-vessels of the ciliary region are frequently dilated.

From these facts, we are warranted in concluding that the efficient cause of glaucoma is obstruction to the angle of the anterior chamber, which may be effected by the pressure of new growths, inflammatory exudations, hæmorrhage, etc., or by the mechanical action of excess of pressure in the posterior chamber. Increased pressure in the posterior chamber is caused by increased blood-supply, occurring under conditions favoring vascular turgescence, and promoted by dilatation of the vessels and atrophy of the ciliary

muscle. Additional observations are wanting to confirm the view that an increase in the diameter of the lens plays an important part in the causation of glaucoma. So far as Mr. Priestly Smith's researches have been carried, there is nothing to contradict the hypothesis; but the number of cases hitherto examined is too small to permit of his conclusions being accepted at present. Should further investigations confirm the view, the existence of an all-important predisposing factor will have been established.

THE ELECTRO-MAGNET FOR DETECTION AND REMOVAL OF FOREIGN BODIES IN THE EYE.—The *Boston Medical and Surgical Journal* contains, in the numbers for March 10 and 17, 1881, a clinical lecture delivered by Macdonald McHardy, F. R. C. S., Professor of Ophthalmology in King's College Hospital, London, in which he advocates the use of electro-magnets both for detecting and removing small particles of iron or steel which may have become imbedded in the eye. He gives several cases treated thus by himself. He finds that by connecting the galvanic battery with the magnet, while the latter is held before the eye, if any particle of iron be imbedded therein the patient experiences a severely painful sensation—a valuable aid in diagnosis. The magnet must now be retained in position until the particle in the eye becomes polarized. In some cases it suddenly leaves the lens, iris, or vitreous, and thrusts itself against the cornea and is removed by an incision through the margin of the cornea. In one instance, having passed clear through the lens it could not approach nearer the magnet, so after it was polarized, a needle, being magnetized, was thrust through the parts until it reached the fragment, which was now withdrawn with the needle. A cataract resulted as was expected, and was afterward operated upon.

Dr. H. W. Bradford, of the Massachusetts Eye and Ear Infirmary, describes a magnet invented for use in ophthalmic surgery, in the above mentioned journal for March 31st, 1881. It consists of a core of soft Norway iron $2\frac{1}{2}$ inches in length by $\frac{1}{4}$ inch in diameter, to the end of which a disc an inch in diameter and $\frac{1}{8}$ inch thick is riveted, with a surrounding helix of insulated copper, weighing twenty-nine grains to the foot, making eight convolutions of $1\frac{1}{2}$ inch in length. This with polar extensions of five, four, and three-

thirty-seconds inch respectively, (where a suspensive power equals twenty, sixteen, and eleven ounces each, when a soft iron armature, one inch by one-tenth in diameter is used,) is used with a battery of a single cell of bichromate of potash having eight square inches of negative surface. The whole weighs about five ounces and is abundantly powerful. He shows that electro-magnets are preferable to permanent magnets, and magnets of the size described to those which are larger and more powerful. He describes a similar manner of abstraction to that previously described, and details several cases as illustrative of his points. The subject seems to be claiming an increased amount of consideration.

Gynecology.

DISEASES OF THE RECTUM DEPENDENT ON MORBID CONDITIONS OF THE UTERUS.—Dr. W. T. Taylor thinks (*The Medical Herald*, February, 1880,) that while sedentary habits may be a predisposing cause of the more frequent occurrence of diseases of the rectum in females, a much more frequent cause is to be found in an altered condition of the uterus, such as enlargement, displacement, deranged circulation, etc., etc., acting mechanically and otherwise on the rectum, and that failure to recognize this as a cause has led to the too frequent failures in the treatment of rectal troubles in females. Displacements may occur without enlargement, or there may be enlargement without displacement, either of which may be the cause of the trouble; but more frequently the two co-exist and operate together as a cause, acting on the rectum injuriously; first, by mechanical pressure; and second, by inducing vascular disturbance, like that already existing in the uterus. This pressure on the bowel interferes with its muscular action and the circulation, and irritates the mucous coat. The hyperæmic state of the uterus blood vessels causes a like condition of the hemorrhoidal vessels, and a determination of blood to them. In retroflexion and retroversion, the fundus uteri is thrown against the rectum, and will, of course, exercise an amount of compression on that organ according to the bulk of the uterus and the capacity of the pelvis. In anteversion and ante flexion, the cervix will make pressure on the rectum in proportion to the size of the womb, and the degree of its displacement. The hemor-

rhoidal veins suffer more from this pressure than the arteries, the coats of the veins being thin and capable of great distension and not resistant; while the arteries are smaller, firmer and more elastic. The blood in the veins becomes stagnant, coagulates and we have internal piles resulting. Other diseases, as prolapsus ani, fissure, fistula, etc., can in many cases be traced to this pressure or derangement of the hemorrhoidal circulation. It is, therefore, of vital importance that when finding any of these diseases in women the uterus should be examined, as being the probable cause of the trouble, and by directing our treatment to the cure of the uterine disease we relieve the rectal trouble and cure our patients. The doctor gave numerous cases illustrating the truth of his remarks.

Therapeutics.

THE TREATMENT OF DISEASE BY FRANKLINISM.—Dr. W. J. Morton (*Medical Record*), in some interesting papers, reaches the following conclusions:

1. Static electricity as a curative agent in medicine may fairly be placed on a level with galvanism and faradism. In certain diseased conditions it is superior to either. By insulation and sparks, paralyzed muscles and nerves are stimulated, just as by induced currents.

2. The main objections to static electricity are based upon the inconvenience, the working uncertainties of the apparatus, and the difficulty of measuring and controlling the electricity administered. These objections fail to have weight with the use of a modern improved Holtz machine, and a proper electrometer.

3. Insulation and sparks, both or either, more notably sparks, relieve cutaneous anæsthesia more quickly than galvanism or faradism. In hemiplegia with organic lesion, numbness and anæsthesia is at once relieved by this treatment.

4. Decided motor improvement may be obtained in hemiplegia of long standing. The dragging of the toe, the tread on the outer side of the foot, the outer swing to the leg, the rigidity at the knee, elbow and shoulder, may all be to a very apparent degree and often entirely removed. The contracture at the wrist and fingers is incurable.

5. In paraplegia and systemic diseases of the spinal cord in general, there is every

reason to expect that by means of long and strong sparks to the spine that results not now attainable may be reached.

A distinguished and careful observer (Dr. Wilks, of Guy's Hospital, London), familiar with the treatment by sparks, thinks that "patients suffering from paraplegia who are now benefited by the constant current were previously cured by static electricity."

6. In the sense that medicines are tonic, the positive electrical insulation is tonic.

7. Static electricity by insulation and sparks is principally useful in conditions of paralysis, spasm and neuralgia, and pre-eminently in subacute and chronic rheumatic affections, whether tendinous, facial or muscular.

8. Static electricity cures disease, as other forms of electricity do by stimulations of nerves and muscles, organs and nerves of special sense. It likewise cures by aid of the spark, in virtue of a sharp, deep, mechanical agitation of the diseased tissue, acting in this instance like physical exercise and massage, by causing alteration of nutrition.

But above and beyond these methods of curative action is the principle as lately established by Brown-Séquard, of reflex action in remote parts by peripheral irritation of the terminal distribution of the sensory nerves. In electrification by insulation, electricity of high tension is actively accumulating on and beneath the skin, i. e., the nerve distribution, and as actively discharging: the effects of static electricity are then in this instance produced from the periphery; and, owing to the fact that the electrification is general and the tension high, no other form of electricity offers equal promise in the treatment of diseases or conditions that can be affected either in a sedative or stimulating manner from the general peripheral nerve distribution. The recent experiments of Brown-Séquard lead us to believe that many diseases may be thus acted upon.

9. The invention by the author of a method of obtaining an interrupted static induction current from a frictional electrical machine adds to medical electricity a new and practical means of electrical treatment. This current is more agreeable in its administration than ordinary induction currents. Both nerves and muscles are stimulated by

it to a higher degree than is possible by means of any other induction current now in use, and a corresponding advance in the efficacy of electrical therapeutics in these two directions may be confidently expected.

The new current, furthermore, greatly enlarges the scope of static electrical machines in medicine by combining in a single machine all the advantages both of static and induction electricity.

Surgery.

TREATMENT OF ABSCESS OF THE LIVER.—M. J. Rochard, (*Bulletin de l'Académie de Médecin—London Medical Record*), describes the treatment of hepatic abscess by free and direct incision, combined with antiseptic precaution. Dr. Little, of Shanghai, reports three cases. Abscess of the liver, M. Rochard states, when not treated surgically, causes death in about 80 per cent. of the cases. The old methods of surgical treatment have not reduced this rate of mortality to any great extent; certainly, in cases of large abscess, to not less than 68 per cent. Consequently, surgeons have not been eager in interfering, and some, with Dr. Maclean, in consideration of the prolonged suppuration resulting from the opening of a large hepatic abscess, and of the putrefaction of pus and the gangrene consequent on the penetration of air into the large cavity, have declined to intervene. Most surgeons who have to deal with cases of this kind, think it right to open the abscess, but, before doing so, wait until œdema and redness of the abdominal wall have indicated the point to which the pus is making its way, and often whilst waiting lose their patient, or find that the abscess has burst internally. Finally, in cases where such practice is successful, the cure is attained at the price to the patient of many months of suffering and danger. A method which would permit the surgeon to act in good time, to operate with certainty, and to effect a cure within one month, must be regarded as constituting considerable progress. That such progress has been made seems, according to M. Rochard, to be proved by the results of the treatment carried out in the three recorded cases. Dr. Little had previously treated twenty cases of hepatic abscess either by frequently repeated puncture and aspiration, or by incision without any antiseptic precautions. All the patients died with the exception of one, in whom a small abscess

with a chronic course projected into the epigastric region, and was opened there without any bad results. In his three recent cases, Dr. Little had recourse to the method described and discussed in M. Rochard's communication. This method consists in determining, with as much precision as possible, the seat of the purulent collection; in verifying the diagnosis by puncture and aspiration; then using the needle as a conductor, making a free incision into the abscess, clearing out all the contents, and finally, preventing consecutive mischief by antiseptic injections, drainage, and Listerian dressings. The diagnosis of abscess of the liver, M. Rochard points out, is not easy. Local pain is not manifested until the pus has reached the surface of the organ, and perihepatitis has been excited. This symptom is often absent even in cases of very large hepatic abscess. Reflex pain in the right shoulder, also, is very frequently absent. The only symptoms on which reliance can be placed, are increase in the size of the organ, digestive and respiratory disturbances, and fever. In most of these cases, the hepatitis succeeds dysentery or dysenteric diarrhœa. When, in a subject who has suffered from either of these affections, fever occurs, the digestion becomes disturbed, and the liver enlarges, it may be concluded that the hepatitis has been developed. If the fever presents a remittent character, with evening exacerbations, preceded by rigors and followed by sweating, the formation of an abscess should be expected, and steps at once taken to test this diagnosis by puncture and aspiration. The abscess is situated in the right lobe in seven out of ten cases, and in most cases projects at the convex surface of the organ. The dullness then extends towards the nipple, and is bounded by a curve with its convexity upwards. The patient is troubled by cough, dyspnœa, and pain during inspiration, and occasionally auscultation and percussion reveal the signs of diaphragmatic pleurisy. In a case of this kind, the most favorable seat of an exploratory puncture would be the eighth or ninth intercostal space, in a line with the anterior border of the axilla. When the purulent collection projects at the concave surface of the liver, the false ribs are expanded, and the extent of the swelling may be made out by palpation. The spontaneous pains, when they occur, radiate towards the iliac fossæ

and the sacral region. Vomiting is a frequent symptom. An exploratory puncture in such case is best made below the margin of the eighth rib, and at the point where there is tenderness on pressure.

The preliminary puncture is made by Dr. Little with a needle about three millimetres in diameter, the instrument having been dipped in carbolic oil, and the integument of the right hypochondrium washed with a five per cent. solution of carbolic acid. It is often found necessary to introduce the needle several times before puss can be obtained. These repeated punctures of the liver, as has been proved by the observations of Jaccoud and Lavigerie, are absolutely free from danger.

When the presence of pus has been made out, a free incision through the whole thickness of the abdominal wall is made by the side of the needle, and parallel to the ribs. The evacuation of the fluid contents of the abscess is facilitated by the introduction of forceps between the lips of the wound, and by expansion of the blades, and also by the transmission of manual pressure through the abdominal wall to the inferior surface of the liver. The cavity of the abscess is then washed out with a weak solution of carbolic acid, until no traces of pus, or flakes, and of portions of slough, can any longer be seen in the returning current of the injected fluid. A piece of drainage-tubing of very wide calibre is then passed to the bottom of the cavity, the outer portion of this being cut off on a level with the wound. Application is then made of the ordinary antiseptic dressing of gauze with protective and jaconette, which dressing is maintained by means of an elastic bandage. This dressing is changed daily, and at the same time the protruded portion of the drainage-tube is cut away. The results of this treatment in the three cases treated by Dr. Stromeyer Little were most satisfactory. The operation in each instance was immediately followed by improvement in the general condition of the patient. There was also immediate disappearance of fever, and complete absence, during the subsequent treatment, of any febrile reaction. In two cases, complete cure was attained within one month, and in the third case, in which a second operation was necessitated through relapse, the third patient was able to travel on the seventy-sixth day.

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Ostitis—A Lecture.

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IN speaking to you of periostitis, the subject of my remarks last week, you will remember that I alluded to the fact that it is often associated with ostitis or inflammation of the bone itself, and as this, ostitis, is always a very important factor in the development of at least two other very common diseases of bone, namely, caries and necrosis, I think it will be worth while for us to devote at least a portion of this morning's hour to its consideration.

Ostitis is especially common during early life, when the bones are in a growing condition, and when, therefore, the vascularity of the osseous tissue is at its maximum. Like periostitis, ostitis may be acute or chronic; it may involve a very limited portion of bone, or it may pervade its entire length and breadth, though this is somewhat unusual; and I may add that the cancellous or spongy portion of bone is much more frequently involved in this disease than the hard or compact portion.

If you will examine a bone in the earlier stages of the disease you will find, first, that it is very much enlarged, but on examining it somewhat more closely you will find, also, that a good deal of its increase in size is dependent upon the swollen and thickened condition of the periosteum; secondly, that the bone has gradually lost its density; that it is infiltrated throughout with a product of inflammation, usually of a sero-plastic nature; you will find that its blood vessels are all turgid, engorged with blood; that it has assumed a kind of reddish, dark color, and that the whole structure of the bone has been softened. At the same time that these changes are going on in the bone, absorption

of some of the earthy constituents of the bone takes place, which not only renders the bone soft and spongy, as I have just indicated to you, but which, when the disease has fully developed, when it has reached its height, causes the bone to be very easily cut or bent. You will find, also, that the osseous fibres have been gradually separated from one another, and that the widened inter-spaces thus produced have been immediately filled up with some of the inflammatory products dependent upon the different stages of inflammation. You will find, also, that the haversian canals in the compact tissue, especially of the long bones, are very much enlarged, larger than normal, and that the cells of the spongy tissue or the cancellous tissue of the bone are also increased in size. If the disease attack the outer layers of, for example, a long bone, the periosteum very soon becomes inflamed, and it becomes also separated from the surface of the bone by the inflammatory condition underneath it. In this way, the circulation on the outside of the bone is, as I told you the other day, cut off at once, and it is very apt to lead to superficial death or necrosis of the bone, or, as this form is sometimes called technically, exfoliation. It may also lead to caries, of course; but I am speaking now of the shaft of a long bone in which, as I shall tell you by and by, necrosis is much more common than caries. I say, then, that if ostitis attack the outer layer of a long bone, the periosteum very soon becomes involved, is separated from the shaft of the bone by inflammatory products effused underneath, and in this way the circulation is cut off. The surface of the bone is supplied mainly by vessels which pass through the periosteum, so that this portion of the bone is cut off from its vascular supply and is very apt to perish; and when it does so, it gives rise to what we

call superficial death or necrosis, technically known as exfoliation.

Now, when the inner layer of a long bone is involved in this disease, *ostitis*, the medullary membrane is sure to become inflamed and separated in the same way that the periosteum was in the other case; and if the inflammation goes on to the stage of suppuration, and the marrow of the bone is involved, it gives rise to another disease which is known as *osteo-myelitis*. Now, when the inflammation of the bone is extensive, both the periosteum and the endosteum, or the medullary membrane may be involved, and it is therefore in just this class of cases in which the circulation is cut off on both sides of the bone, by separation on the outside of the periosteum, and on the inside of the endosteum or medullary membrane, together with the formation of plugs or emboli in the different branches of the nutrient artery, that we have general death or general necrosis. Now, you can easily understand that, gentlemen, and I want you to fix it in your minds, because it is a very important matter in enabling you to understand precisely what is going on in a case of diseased bone.

You see from what I have already said in our last lecture and in to day's, how very intimately associated with one another are all of these diseases of bone, periosteum and medullary membrane, and how utterly impossible it is, therefore, for us to keep absolutely within the domain of one, and not encroach more or less upon the other. All of these diseases of bone, and of its membranes—*periostitis*, *ostitis*, *endostitis*, *osteo-myelitis*, *caries* and *necrosis*—are more or less associated with one another. If you have a case of *ostitis*, it is generally associated with *periostitis* or *endostitis*; if you have a case of *periostitis*, it is very apt to be associated with *ostitis*; if you have a case of *osteo-myelitis*, it is very apt to be associated, of course, with inflammation of the substance of the bone, as well as there being inflammation of the medullary membrane and of the marrow of the bone.

Now, the terminations of *ostitis* are exactly the same as what we might expect to occur in inflammation of the soft tissues, differing, of course, in accordance with the difference of structure which is inflamed. Thus, in the first place, inflammation of bone may terminate in resolution, just as inflammation of the soft parts so terminates

sometimes; the morbid process ceases, and the parts return to their primitive condition. In the second place, the morbid process may stop at a certain stage, and terminate in what we call hypertrophy or enlargement, or, as it is sometimes called at the present day, hardening or sclerosis of the bone; in accordance with a law of nature, there being inflammation of the bone, there is what is called hyper-nutrition, and the bone becomes enlarged, and frequently permanently so. Or, lastly, the inflammation of the bone may terminate in one of those ways which, when applied to the soft tissues, we designate as suppuration, ulceration, gangrene, but to which, in the hard tissue of the bones, we give the names, first, suppuration; secondly, *caries*—corresponding to ulceration in the soft tissues; and thirdly, *necrosis*—corresponding to mortification or death en masse in the soft tissues. It follows, therefore, that each case of *ostitis* will derive its chief importance from the prominence of one or more of the features which give it its individual characteristics. Thus, under one head we may include all of those cases in which the product of inflammation undergoes organization, and the disease terminates in hypertrophy or enlargement of the bone; the disease ceases, but it terminates in permanent hypertrophy or enlargement of the bone; under another head we may include all of those which go on to the formation of pus or suppuration; under a third, all of those in which there is destruction of tissue by that process which we call ulceration, disintegration, or molecular death, and which will include under it, of course, pretty nearly all cases of so-called *caries* of the bones; then, under a fourth head we may include all of those cases in which there is a condition corresponding to gangrene or death en masse of the soft tissues.

Now, cases of *ostitis*, like those of *periostitis*, are either traumatic or constitutional. Anything, in fact, which interferes with the nutrition of the bone, embracing all of those injuries to which the bones are liable, and which I enumerated under the subject of *periostitis* the other day, such as blows, kicks, contusions, and all kinds of fractures, dislocations, gun-shot wounds, the action of caustic substances, the effects of heat and cold, and so on, come under the head of local traumatic causes. Then, under the head of constitutional causes are such diseases as syphilis,

scurvy, rheumatism, gout, the effects of mercury, and so on.

The symptoms of osteitis are also very similar to those of periosteitis; indeed, it is sometimes exceedingly difficult even for the most skillful diagnostician to discriminate between the two in their first stages. They come on almost exactly alike. They are all accompanied with an intense gnawing and disagreeable pain in the bones locally. They all have the feature of being aggravated at night-fall, especially after the patient becomes warm in bed. Fortunately, however, an error in the diagnosis is not a very grave matter, since the treatment of osteitis and periosteitis, especially in their earlier stages, is almost exactly the same, and consists, as I told you the other day, in the diligent use of such remedies as lotions, fomentations, the administration of depressants, the employment of local and general blood-letting, and lastly, the use of opium. Now, if pus forms, as it is very likely to do, especially in the chronic form of osteitis, indicated by the occurrence of intense fever alternating with rigors and profuse perspiration and by the fixed and terrible character of the pain from which a free incision through the periosteum fails sometimes to give relief, then it will be your duty to suspect the occurrence of osteitis of the suppurative variety, and to make an opening in the bone with a small trephine, such as you would use upon the head, only of smaller size, at a point where you suspect the presence of pus, thus giving it a free escape.

Now, on the other hand, if the disease has terminated, as I told you it might, simply in a state of hypertrophy, the bone is enlarged without the formation of pus—the inflammatory symptoms have subsided, but the bone remains enlarged; then your main reliance will be upon the very long use of such alteratives as the iodide of potassium, either alone or in combination with very small doses of the corrosive chloride of mercury, what is known as corrosive sublimate; giving the iodide in doses of from five to twenty grains three times a day in conjunction with about a thirty-second or a sixty-fourth of a grain of corrosive sublimate, and also in the local use of such means as iodide, which I recommended you to use the other day in the treatment of periosteitis, in the form of an ointment in preference to the form known

as the tincture; also in the use of frequently repeated small blisters, what are called flying blisters. Setons and issues have also been used in the treatment of this form of osteitis, or in the treatment of this result of osteitis, but my experience with them has not been of the most favorable character. I prefer to depend more particularly upon the remedies which I first enumerated rather than upon these.

If you have caries or necrosis supervene, these must be dealt with in accordance with methods which I will speak about when we reach those diseases.

With these remarks, gentlemen, upon the general nature of the inflammation of bones and their membranes we may turn our attention now to a brief study of that common disease of bone which is known as caries. I have made use of these first two lectures to discuss in a general way the inflammation of bone and its membranes in order that we may study the special diseases of caries and necrosis with a better understanding of the processes then going on.

The term caries has a latin origin; it signifies simply rottenness or decay, and is used in a surgical way almost as synonymous with ulceration of bone. So much discrepancy, however, exists among different writers with regard to the disease that it is almost impossible to give it a concise definition. You will find in reading up the literature on caries that one author regards it as this, and another as that, and so you will be led into inextricable confusion in your study of it. I shall, therefore, content myself with the statement that caries is essentially that condition of the bone which follows the softening stage of osteitis. Now you see the application; I told you that one of the features of osteitis was that the bones became softer, and I say now that caries consists essentially in the condition of bone which follows the softening stage of osteitis, when the inflammation pursues its course towards disintegration or towards destruction rather than towards resolution or recovery, in which, in other words, the inflammatory exudation which has taken place in consequence of osteitis tends to break down into the form of pus, and in which the bond of union which exists between the two elements of bone, namely, the earthy material on the one hand and the animal material on the other, is absorbed,

dissolved, and the earthy material of the bone is eliminated in a granular or molecular form in the discharge which takes place from suppuration. Do you understand that, gentlemen? Let me repeat: I say that caries is that condition which succeeds to the softening stage of osteitis, in which the inflammatory process pursues its course towards destruction or disintegration, and to the formation of pus; and coincidentally with this process we have a solution going on of that material which forms the bond of union between the earthy constituents of bone on the one hand, and the animal constituents on the other; and as this process is completed we have an elimination of the earthy constituents of the bone in a granular or molecular form in the discharges which take place.

Now, carious bone is usually fragile and porous in character; it is also of a dark color, sometimes almost entirely black, at other times of a leaden appearance. It consists of two portions, one portion composed of a softened mass into which a probe easily sinks and which can be broken down usually by the finger or some instrument; the portion composed of little excavated cells upon the surface of the sound bone: these cells are usually filled with a reddish material of an oily character. The bone surrounding the carious mass, as well as the membrane in the neighborhood, whether it be the periosteum or the endosteum, are in a very vascular condition, and you will find also, sometimes, new deposits of bone thrown out in the neighborhood. These are called osteophytes. They occur in connection with both caries and necrosis.

Caries is most likely to occur during early life; it is peculiarly a disease of young life. Very seldom will you see a case of caries in an adult, except as the result of an injury. You will remember that I said osteitis occurs most frequently at a time when the bones are young, and at a time, therefore, when the vascularity of the bone is at its maximum. That statement is equally true with regard to caries. We find it, therefore, occurring most frequently in those bones which are most largely composed of cancellous or spongy tissue. Hence, the bones of the vertebra, the sternum, the tarsus, the carpus, and also the articular extremities of the long bones, especially such bones as the femur,

the tibia and the humerus, are peculiarly liable to caries.

The local causes of caries are pretty nearly the same as those which I have described to you in speaking of periostitis and osteitis. Anything which interferes with the circulation of the bone, whether it be brought about by depriving the bone of its fibrous covering, the periosteum or the endosteum, or whether it be brought about by any means acting locally which interferes with the nutrition of the bone. Regarding constitutional causes, we find that it occurs most frequently in those diseases which produce general debility, among which we find standing at the head of the list such diseases as syphilis, scurvy, gout, rheumatism, and those peculiar effects which result from the injudicious employment of mercurials, etc.

The symptoms of caries are generally very obscure at first; that is to say, it is very difficult to differentiate between what is eventually going to result in caries or a common case of periostitis or osteitis, and it is, therefore, usually only after ulceration of the superincumbent soft tissues has occurred that the nature of the disorder is fully understood; and then it is made out only by a very careful examination by the eye, by the fingers and by the probe. You will understand what I mean by this by reflecting upon what I told you as to the consistency and the nature of carious bone. You have the primary history of the case, suppuration takes place, an abscess is formed and discharges, and it is then, I say, that you will understand wholly the nature of the disease that you will have to deal with when you come to examine it carefully by the eye in the first place; secondly, by introducing the fingers into it to see what kind of tissue there is at the bottom of the abscess; and thirdly, by introducing the probe, which, as I told you, will pass into carious bone so as to break it up. Carious bone is of such a consistency usually that you can pick it to pieces with your finger nail, or a little instrument in your pocket case.

The external orifice formed by the discharge of an abscess connected with carious bone is somewhat peculiar; it may be oblong or round, but it generally assumes the form of a puckered orifice, and welling out of its interior you will generally find a quantity of a soft fluid substance like what we call fun-

gous granulations. In a word, the whole appearance of the external opening of a sinus connected with carious bone bears a strong resemblance to the anus of a chicken.

The discharge from carious bone is generally of an ichorous character; it is not laudable pus; it has almost invariably a fetid odor. This is true also with regard to sinuses communicating with necrosed bone. Wherever there is dead bone the discharge usually has a peculiar characteristic fetid odor. If you take some of it between your finger and thumb and rub it in this way you will find that it is loaded with the earthy constituents of bone, so to speak, being gritty to your sense of touch. It also has a very irritating or acrid property, so that the parts over which it runs as it is discharged from the sore are generally considerably excoriated by it. It affects these parts very much as the discharge from the nose of a child, who is suffering from an aggravated form of coryza, excoriates the upper lip. It produces redness of the skin of the leg, if that be the seat of the abscess, and sometimes destroys the epidermical covering, leaving the parts raw and excoriated.

The constitutional disturbances which arise in the progress of caries will depend very largely upon, first, the extent of the disease; and secondly, upon its locality. Thus, in a mild form the constitutional disturbance may be very inconsiderable, but in an extensive condition of caries, and especially in those cases in which it takes place in the articular head of the bone, where, as sometimes happens, the articular cartilage is greatly destroyed and the discharges from the carious bone connect with a large joint, such as the knee, or hip, or shoulder, then you will probably have superadded to the general disturbance which belongs to the disease what are called hectic symptoms. There will be fever in the afternoon, which perhaps will last pretty continuously up toward the middle of the night or toward next morning, and then break up in a profuse perspiration, or the patient may be suffering with a pretty active diarrhœa, which, in connection with the suffering and the exhaustion which belongs to the extreme pain of the disease, acting upon the constitution, which is generally already enfeebled, causes the patient to run down very rapidly.

The treatment of caries must be conducted

at first with special reference to its cause. Thus, if we find caries occurring in a person who has a syphilitic history, obviously the first indication is to treat the constitutional syphilis, to eliminate it from the constitution as fast as possible; build the patient up and get him in good condition where his tissues can undergo a reparative process. If it is developed in connection with gout or rheumatism, those diseases must be treated. If in connection with scurvy or scrofula, those conditions must have appropriate treatment, and so on. But you must remember that the majority of cases of caries, where it is superficial enough to be reached, will require, sooner or later, some kind of surgical treatment. A few cases, understand, will get well by constitutional treatment alone, especially if they depend upon a syphilitic origin and be taken in hand early. You should remember this fact and not be in too great a hurry to institute operative procedures in the treatment of caries. Remember, also that it is never safe to interfere surgically with carious bone during the acuter stages of the disease; that if you are going to operate you must patiently wait until all the active features of the disease have subsided, taking hold of it when it has passed into the chronic stage. If you interfere with it while everything is in a state of activity you will probably light up the disease afresh, and you will find that the wound, instead of granulating and filling up kindly, as it would do had you waited until it had passed into a chronic stage, the carious disease will spread in every direction; the portions of surrounding bone which you have uncovered by your gouge, or chisel, or forceps, whatever you may have used, will take on the same disease, and it will go on spreading to the surrounding parts; and whereas, at first you had only a small portion of bone involved, a few months after such an operation, done during the acute stages, the whole bone will be involved. Some of you have seen that principle carried out at my clinic. We have constantly patients brought here with dead bone, sometimes of the jaw, sometimes of the shin bone, sometimes of the fingers or of the bones of the hand. Now, in such cases, if it be carious bone which has gone on for a good while, what we call a chronic case, we do not hesitate to cut down and remove it; but if it is in an acute condition, if it is evidently going

to terminate as a case of necrosis, with a separation of a large part of the bone, we never interfere until nature has had an opportunity to separate the dead from the living. I believe that the moment you interfere with it short of that period you light up the disease afresh and run the risk of having other portions of bone extensively involved.

The local treatment of caries consists in an attempt to get rid of the diseased bone; to clean it all up, and to get a healthy, wholesome condition of the sound bone in the bottom of the wound, which will granulate and fill up like any other sore in the soft tissues. Now, this is accomplished in various ways. First, some surgeons prefer to treat it, when it is situated in a superficial bone where it is easily accessible, by applying to the carious tissue a mixture of equal parts of strong sulphuric acid and water, wiping it over the parts by means of a little glass brush, which is about the only substance that will stand the action of the caustic. Now, the effect of this is, that these small particles, partly or partially dead and partly of completely dead bone, are destroyed by the acid, and they come away much more quickly than they would do if they were left to themselves. The acid, on the other hand, probably kills a small portion of sound bone which lies just outside of the carious bone. But this speedily passes into a state of necrosis; that is, instead of dying a molecular death, or by ulceration, which is characteristic of caries, it is killed all at once, so to speak, and is thrown off in a very short time and comes away as sequestrum. Now, you can accomplish this result sometimes safely, and at other times you can not. You can easily understand why. It is sometimes impossible to limit the action of the acid to the parts which you wish to affect, and it is for that reason that the majority of surgeons are inclined to give up its use. The next means consists in the application to the carious bone of a hot iron, the object of which is precisely the same as in the former case, that is, to convert a case of caries, so to speak, into a case of necrosis; to destroy at once a portion of bone which would otherwise occupy a long time in coming away, by applying to it a hot iron and causing it to come away in the form of a sequestrum. This is an exceedingly useful method in some cases, but its use is of course

limited to those cases in which the disease is situated in portions of the body where it is easily accessible. The best means for applying the hot iron is the Paquelin thermocautery, which you see in my hands. This can be raised to a sufficient degree of heat—it need not be very white—and carried down and applied to the carious bone, which has been exposed by means of the bone forceps or a gouge, and destroy it. The surrounding parts should be protected by means of a horn speculum, or a speculum made of asbestos, or of wood, or some material which will limit the heat. You understand that by this process you simply convert a case of caries into a case of necrosis; instead of allowing the bone to die by a molecular process, a process of ulceration, you cause it to die at once en masse. If you are not in a condition to purchase the Paquelin thermocautery, which costs, I am sorry to say—I am almost ashamed to say for the honor of our instrument makers—about thirty dollars, you can get along pretty well with a set of instruments like these, which consist of metallic rods of different sizes and shapes, and all of which fit into one handle and can be fastened there by means of a thumb screw. The end of them is heated in a charcoal furnace, or in a common grate or stove fire. The difficulty with them is that they cannot be kept at a certain grade of heat until you shall have finished the operation; they may be hot enough when you begin to use them, but they very soon fall fifty or a hundred degrees in temperature. The bulb near the end of the instrument is for the purpose of retaining the heat a longer period of time.

The operative procedures for the treatment of carious bone are various, but they may be enumerated under about four general heads: First, you may operate by simply removing the dead bone itself, which is generally accomplished by means of a small number of instruments, consisting first of what is called a rongeur, or a gnawing forceps, which I hold in my hands. This instrument is used to cut away the margins of the opening which communicates with the carious bone in order that you may be enabled to introduce other instruments to dig or scrape it out. You will, of course, before making use of this instrument, expose the opening in the bone by a free incision, either

straight or crucial in form. There is another form of rongeurs or bone gnawers, constructed with straight blades, but usually you will find that these with the blades bent at nearly right angles with the handle, like a pair of dental forceps are much the more convenient for use. Having exposed the bone you will proceed to dig out the softened bone in the bottom of the wound by using first what is called the gouge chisel. This is made sometimes like a common chisel, to be operated by means of a leaden mallet like this. This instrument is sometimes quite necessary, not so often, however, in an operation for caries as for necrosis, where it is sometimes necessary to go through a hard shell of bone in order to get at the dead bone which is imprisoned within it. The mallet with which the handle of the chisel is struck is made of lead, so that it will make a perfectly dead blow, and not rebound as it would do were it made of steel or iron. There is another chisel which, instead of having a rounded edge, is perfectly flat, and is used to cut off corners and angles of bones, but in the case of carious bone you can usually gouge away the soft structure with the curved chisel better than with anything else. Having exposed the bone in that way, so that you can get down into the bottom of the cavity, you will find that the best instrument for cleaning it out is what is called the curette, a little instrument made for the purpose of being introduced into the bottom of the carious cavity and scraping its surface from one end to the other. If the cavity be deep you can use this uterine curette, which is mounted on a long and slender handle. Having removed the unsound bone, and come to that which has the appearance of sound bone, your local measures will then consist simply in stuffing the cavity carefully with dry lint, and allowing it to heal up from the bottom by a process of granulation.

The Systematic Study of Causes of Sickness and Death.

A PAPER BY HENRY B. BAKER, M. D.,
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THE first and most constant need of the sanitarian is accurate knowledge respecting those most common of all occurrences—sickness and deaths from disease which dur-

ing years and series of years have afflicted mankind. If it seems strange that there is so great lack of knowledge on such common subjects it must be remembered that sanitary science is one of the latest sciences, and that physicians, as such, have had no need to record or to note many of those classes of facts which form the foundation of sanitary science, though some have had occasion to contribute greatly thereto. The prevention of sickness has not been their work, and the collection of facts respecting vast numbers of cases of sickness or deaths involves labor and expense too great to be borne by individuals, unless the knowledge gained thereby is such as will advance the work in which they are engaged. It has not been apparent that sanitary science would greatly advance the art of healing or the science of therapeutics, for which other classes of facts are needed and for which they have been diligently collected in times past. Though it is possible that the science of therapeutics might be fostered and advanced by governmental aid, there seems to be no especial need for such aid so long as it is for the pecuniary advantage of individuals to perfect their knowledge of therapeutics in order to lead in the practice or teaching of their profession. But with sanitary science the case is very different. There never has been and there is not now in this State, any class of persons having such an income from any public-health service by the individual citizen as will permit of any effort for the collection of those facts which are essential to the beginning of sanitary science. In the statement just made I do not forget that progress in sanitary science and improved public-health service increases the incomes of individuals generally throughout the State; this is undoubtedly true, but it does so by lessening expenditures and by increasing the ability to labor in ordinary and extraordinary pursuits. It is plain, therefore, that we cannot expect much progress in sanitary science without some such associated effort as that afforded by governments—state, national and local. The old saying that "what is everybody's business is no one's business" is particularly applicable in this connection, for though it is readily granted by everyone we meet that "health is wealth," that "public health is public wealth," that an "ounce of prevention is worth a pound of cure," and that measures

for the promotion of health are of vital consequence to every person; yet except the government aids, there is now no person who can get a living by laboring for the prevention of sickness.

HOW CAN GOVERNMENT PROMOTE SANITARY SCIENCE?

The chief duty of a government is to do for the safety of a people whatever they are unable, singly or by practicable voluntary associations, to do for themselves. If, as is now known to be the case, people die or suffer in great numbers from lack of knowledge which only the government can collect and diffuse among them, evidently it is one of the highest duties of the government to collect and diffuse that knowledge. That hundreds of such deaths have occurred in this State in every year is now established by good evidence.

WHAT KNOWLEDGE IS NEEDED FOR THE PREVENTION OF DEATHS?

Manifestly the first requisite for the prevention of deaths is a knowledge of the causes of the deaths. This has never been recognized by intelligent legislators, and in most civilized countries "vital statistics" have for many years been regularly and systematically collected. The same is true in many of the States of this Union. The history of progress in public health movements shows that sooner or later the facts thus collected, usually lead to some organized work for the prevention of deaths; thus in England, annual reports by the Registrar-General relative to vital statistics have been published since the year 1838, while reports by the Medical Officer of the Privy Council date from the year 1858, showing that after the beginning of vital statistics in England, twenty years elapsed before a general Board of Health was established with a view of attempting to systematize the public health work and make it more effective. In this country, in Massachusetts, vital statistics have been collected since 1842, and in 1869 a State Board of Health was established for the prevention of those deaths which the vital statistics showed to be most numerous. During the twenty-seven years preceding the establishment of a State Board of Health in Massachusetts, the statistics of deaths and their causes had been collected, published and studied by citizens of that State, and the evidence was conclusive that many

deaths occurred from causes known to be preventable, and many more occurred from diseases believed to be preventable or avoidable. In Michigan, vital statistics have been collected since 1868, and the State Board of Health was organized in 1873—following the first inquiry for facts more speedily than in older countries, partly because the vital statistics of Michigan soon showed that, in Michigan as in Massachusetts, there were many preventable or avoidable causes of sickness and death, and suggested a similar agency for communicating to the people the knowledge necessary to avoid or prevent deaths from such causes.

The man or the body of men who, from its vital statistics, shall construct the public health service of a State must bring to the task the knowledge which can be acquired only at the feet of the masters of the medical sciences, and in the every-day walks of the physician, the familiarity with the manifold forms and habits of minute organic bodies, both animal and vegetable, which only the biologist has attained; the command of the inorganic substances and forces of nature which is bestowed only in the laboratory of the chemist; the knowledge of the formation and relative positions of rocks and soils and of the relations of these to drainage and water supply, which is the reward of the geologist; the knowledge of climate and of prognostications of weather, which is the heritage of the meteorologist; the knowledge of the principles of government and of the moral nature of man, which characterize the lawyer; the power of commanding the attention and addressing the conscience of the people, which is the glory of the orator and the preacher—these qualifications and more are requisite not only to that study of vital statistics which shall discover the preventable cause of deaths and elaborate practicable means for their removal or control, but also to that successful adaptation of means to ends by which the people shall be led to adopt and enforce practicable measures for their own protection and safety.

USES OF VITAL STATISTICS.

To vital statistics we are indebted not only for evidence showing the necessity of effort for the prevention of deaths, but such statistics are needed for constant reference in studying methods by which the deaths may be prevented. Before we can act intel-

ligerly for the prevention of deaths from any given disease or cause, we need to know the time of year at which the danger is greatest, the age at which a person is most in danger, to persons of which sex the danger is greatest, whether the danger is greater in one part of the state or country than in another, and many other facts. Vital statistics accurately collected, compiled and studied, for a period sufficiently long, will give us such information.

METEOROLOGICAL AND OTHER CONDITIONS MUST BE KNOWN.

In order to build up a sanitary science which shall serve as a basis for the prevention of sickness and deaths, it is essential, as has already been said, to have facts from more sources than one. It is not enough to know that there are more deaths from inflammation of the lungs in winter, and more from diarrhœa in the summer—we need to know to what condition of the air, what condition of the body, or of its surroundings, the increase of deaths or of sickness is due, before we can consider the best methods for changing or for avoiding these conditions.

Only by long continued watching, recording and studying the meteorological conditions can we learn whether it is the cold, the absence of moisture, the excess of ozone, or the action of the wind, which causes so many more deaths from diseases of the air-passages in winter than in summer, or whether all these are but indirectly related to the subject and the real cause—as Dr. A. N. Bell has recently suggested—filth, which can easily be removed or avoided. Yet nothing is more certain than that if systematic effort is made, we can learn which of the conditions are invariably coincident with the disease, and which are only incidentally present; for notwithstanding the fact that in this State the air is generally cold, dry, windy, and contains an excess of ozone in winter, these conditions do not prevail with absolute uniformity, but sometimes one is absent and sometimes another; therefore, sooner or later, every one of these and other conditions can be compared with the sickness and the deaths from each of the different diseases which now afflict us, and the truth learned as to whether these relations, severally or collectively, are those of cause and effect. If individual effort could readily achieve this, it would have been

done long ago; but when the people of a State collect, compile and publish the materials essential for such studies, the work has begun, and in this State such a beginning has been made.

The State Board of Health now receives contributions of meteorological records from about thirty observers in different parts of the State. Each observer makes records of observations three times each day, namely, at 7 A. M., 2 P. M., and 9 P. M., and he records the facts relative to temperature, humidity, barometric pressure, clouds, winds, ozone, rain and snow. As these observers “work for nothing and board themselves,” they are not expected to add the figures in the several columns for the months; such labors, and also computations of the absolute and the relative humidity, computations to learn the actual pressure of the atmosphere, etc., are performed in the office of the State Board at Lansing, where tri-daily observations are taken. The reports of these thirty or more observers, when added, computed and averaged, are compiled in tables showing for each locality the average for each meteorological condition which is observed. These tables may be used for purposes of study by any person.

SPECIAL INVESTIGATIONS.

Sanitarians must do more than utilize contributions from meteorology and from such of the other sciences; they must make original investigations, such as will result in the actual creation of knowledge never before attained; this is the grand mission of sanitary science in behalf of human welfare, and for this sanitarians must face up to nature in ways never before attempted by human beings, and must bring back from this search after revelations, portions of that eternal truth which will teach us the way of life, the way of health, and the way of happiness.

What some of the points are concerning which special investigations are needed, it may not be amiss to say a word here. With regard to small-pox, diphtheria and scarlet fever, three dreaded diseases which afflict our people, the State Board of Health, in common with the leading men of the medical profession generally throughout the State, already know enough to suppress these diseases if the people could be put in possession of the knowledge and would act

upon the information, which, however, is not likely to be placed before them unless the State Board of Health can have the means for this important service. In fact, small-pox is practically suppressed in Michigan to-day, and diphtheria and scarlet fever have, in many instances in this State, been stamped out of existence in localities where they have appeared. The way to control scarlet fever or diphtheria is not, as seems to be the opinion of many intelligent people and some physicians even, to wait until the disease has taken possession of an individual and then do something to him to kill the disease, providing that the disease does not first kill him, but to keep the disease out of him from the first, by keeping it away from him, and him away from it; and to shut the disease into the closest possible quarters and then burn it out, or smother it in its most secret lurking places. This is possible; it is practicable, and when all our people join hands to do it, it will be as easy as it is now to keep the wild bears of the forest from our homes.

With regard to diphtheria, however, there are questions which it would be of no use to have decided. We know that the living germs or poisonous elements which cause the disease are reproduced within the human body, and that in various ways, direct and indirect, the disease is communicated from one person to another; in other words, we know that the disease is contagious; whether it is also infectious, that is, whether the invisible germs or elements of poison, whose presence in the body causes the disease, are also sometimes re-produced in substances outside the body; how long they can live (or continue efficient to cause disease) in substances outside the human body, and in what substances they can live and retain their deadly power, are questions the correct and unquestioned answers to which would be of great use in preventing the disease and in destroying its cause. It would also be of service to know what it is that makes some epidemics of diphtheria much more malignant than others; for this we may be able to substitute mild for malignant epidemics, in some such way as is now done for small-pox.

We know that typhoid fever poison is communicated by water and by milk; but we need investigation to learn in what other

ways it is communicated and how it is propagated, whether always in the body or sometimes outside the body, and in what lower animals.

There is much, too, that needs to be known concerning consumption; but on this point enough has been said in another part of this paper.

The question of the causation of intermittent fever, or fever and ague as it is called, which we now know to cause more sickness in Michigan than any other disease, is still an unsettled question; and while much has been done toward preventing by drainage, by cultivation of the soil and by planting of trees, it would be a great boon to the people of this State if we could know certainly what are the relations of intermittent fever to marsh land, or what it is connected with overflowed land that so greatly favors the disease; what are the conditions, both subjective and objective, under which ague is certain to arise; what is the specific poison of the disease, if such there be?

USEFUL FACTS FROM THE VITAL STATISTICS OF MICHIGAN.

Facts illustrating the nature of some of the information gained by means of vital statistics already collected in the State, may be given. It has been learned, for instance, that in this State, during a long series of years, the danger from small-pox was not as great as the danger of death from whooping-cough, there being twice as many deaths from whooping-cough as from small-pox (though the proportion of children is greater among those who die from whooping-cough). It has been learned that diseases of the lungs cause nearly one-fifth of all the deaths reported in this State, and that nearly one-half of all the deaths are attributed to diseases of the lungs, the bowels and the brain; and it is found that a large proportion of the deaths from each of these three groups of diseases are reported to be caused by tubercular diseases, such as consumption of the lungs, consumption of the bowels, tubercular disease of the brain and coverings, etc., so that if, as now seems probable, sanitarians shall soon be able to class consumption among the preventable diseases and to teach people how to prevent a considerable proportion of the deaths now charged thereto, it will be one of the grandest achievements of the century, for it will add more to the

financial prosperity of the people than can be easily computed, hundreds of thousands of dollars annually now being lost to the people of this State by reason of sickness and deaths from consumption; and then the anguish of human hearts beyond any power of computation or expression.

The deaths reported from consumption in Michigan will average over 1,400 annually, and there is evidence that the number reported should be much increased in order to equal the deaths which actually occur; probably 2,000 persons die in this State in every year from consumption. And yet, compared with many other states, Michigan is a very healthful state, and we are accustomed to regard these deaths as inevitable; indeed, as a rule, they seem to be when once consumption has been contracted, and up to this time no effort has been made to prevent the spread or occurrence of this disease. It may serve to awaken enthusiasm sufficient to start some effort for its study and restriction, if we consider that consumption is now proved to be communicable from man to lower animals; that there is good evidence that the disease may be communicated from animals affected with it to man—as for instance, to susceptible children by means of milk of a tuberculous cow, to any susceptible persons by means of insufficiently cooked meat of a tuberculous animal; that there are hundreds of tuberculous cows and other animals, and that consumption is probably spread among people in unventilated rooms by breathing air which has come from the lungs of persons suffering from consumption. The evidence of this last proposition is twofold, because from statistical and other evidence some have been convinced of the truth of it, and lately experiments have shown that dogs will contract the disease if caused to breath air in which tuberculous matter has been atomized. Let us place these facts by the side of those others which the vital statistics give us, namely, that counting all children and grown people in this State, at least twelve per cent. die from consumption, an average equal to every eighth person you meet in this State; and we may add that the death rate is reported about double this among persons over 50 years of age. Thus we begin to see abundant reason for tremendous effort to learn the whole truth, and then for another effort for the prevention of this great waste of human life which is

going on among us, with few to lift a voice or hand to stop it; and there are few persons even in this enlightened State who oppose any effort for improved vital statistics, who strive to cripple the resources of the public health service and to hinder the work which has for its object the prevention of sickness and deaths.

GREAT VALUE OF REPORTS OF SICKNESS.

Until recently sanitarians have been obliged to accept as their best guide in the study of the causes of sickness and deaths the facts reported concerning the number, time and causes of deaths; but evidently there is much sickness which does not result in death, but which, nevertheless, it is very desirable to prevent if possible, and there are many deaths having a remote cause in sickness or other conditions quite different from those immediately preceding the death and likely to be reported as its cause; so that statistics concerning the sickness of a people are no less necessary than those concerning deaths.

Weekly reports of sickness also announce to the State Board of Health outbreaks of communicable diseases, and thus enable the Board to direct attention in various parts of the State where such diseases occur to necessary measures for the restriction and extirpation of the disease. For such timely work by the State Board this system of reports is essential.

Yet it is only for a few years that the attempt has been made to collect statistics of sickness, and at this time I know of no such systematic effort being made elsewhere for the collection of facts respecting sickness as that by the Michigan State Board of Health. This Board receives weekly reports of the sickness under the observation of many of the leading physicians of this State, about one hundred of whom, in nearly as many different parts of the State, promptly notify the Board of the outbreak of any communicable disease, and regularly report concerning the relative prevalence of cases of each of the prominent diseases under their observation. This makes it possible for the State Board of Health to send promptly to each locality documents bearing upon the restriction of any particular disease which occurs, concerning the restriction of which the State Board has gained useful information, provided the State Board has the means to

print and to distribute documents in that manner; and such distribution is desirable even if the document has been generally distributed before, because during the outbreak of a disease many will seek and gain information relative to that disease, who will not do so at other times. But aside from keeping the State Board constantly informed concerning the health or sickness of the people, the weekly reports of sickness have great value as contributions to our exact knowledge on the subject, because the facts there reported can be systematically arranged, compiled and joined with other facts similarly arranged respecting the surroundings of people at different ages and at different seasons of the year; and knowledge may thereby be gained which will enable the Board to tell the people the conditions under which sickness from each of the prominent diseases occurs and the conditions under which it does not occur—knowledge which must be gained if we are ever to be able to avoid or control those conditions which are now permitted to cripple and to destroy so many prematurely.

CLIMATIC DISEASES MAY BE AVOIDED.

With increasing facilities for travel, it may soon be practicable for human beings to gain as much control over their climatic conditions as the wild geese have so long enjoyed, but before this can be realized we must know as much as the geese do, for they seem to have gained that knowledge which mankind are so slow in gaining, and for the progress of which I am pleading, namely, such knowledge as will enable any person to know the special danger at each age and at each season of the year in each habitable portion of the earth. But I would not be content to stop with the knowledge of a wild goose, because of the expenses of travel and the many difficulties in the way of periodical movements of the population. There are animals who know enough to take care of themselves in warm or cold seasons of the year, particularly in climates so favorable as that in Michigan; and I see no reason why men may not eventually learn to do as well if only they will admit the feasibility of so doing and will devote a necessary part of their energies to this undertaking. In order to accomplish it, however, it seems to me essential that there shall be organized effort, and especially that those whom we elect to

apportion the expenditures of the State in the interest of the whole people, and not for the exclusive benefit of local or class interests, shall understand the aims and purposes of the systematic study of the causes of sickness and deaths, and shall recognize those purposes as high and noble.

A Gynecological Clinic.

BY WILLIAM M. POLK, M. D.,

Professor of Obstetrics and the Diseases of Women and Children in the University of the City of New York.

GENTLEMEN—This woman, aged about 45 years, has always been healthy, but about six months ago she noticed a small excrescence or growth between the vagina and the urethra, correctly speaking, within the vagina. It has continued to grow until it has reached such a size that she has come here seeking relief. We will examine it, determine its exact nature if possible, and then consider what is the best way to remove it, and then perform the operation.

On superficial observation it seems to occupy about the position which an enlarged clitoris would occupy. But on looking at it more closely we find that it is situated behind the urethra instead of in front of it; consequently it can not be an enlargement of the clitoris. Now, before deciding definitely what this is, let us say a word with regard to projecting masses which may exist here, for all kinds look very much alike, presenting a reddened and excoriated appearance, due to the friction to which they are subjected between the thighs. You will notice here that the inner surface of the thighs are somewhat excoriated by the ichorous discharge which flows from the projection. In saying that the several projections which may present here look alike, of course I mean on superficial observation, for when examined closely they will be found to possess distinguishing characters. You would have suggested to your mind the following variety of solid growths. I say nothing of a rectocele or a cystocele, for they rarely present the appearance which this has. In the first place, an ordinary uterine polypus, which projects from the uterus, becoming elongated until it protrudes from the vagina; second, inversion of the uterus; third, certain cases of prolapsus of the uterus, as one which was in the hospital last winter, in which the entire vaginal wall seemed to be turned inside out; fourth, in certain cases of

hypertrophic elongation of the cervix, it may project as this mass does—of course, in such a case there is also a certain amount of prolapsus of the uterus; fifth, there are various cancerous and sarcomatous growths from the external genitals, but as a rule they do not present the appearance which you see here, they are generally more or less ulcerated, and far more hemorrhage takes place from them; and, moreover, they usually grow from the labia and not from the vaginal wall, as does this growth. Again, warty excrescences occur about the female genitals, just as they do about the male; but usually, although they may reach about the size of this, they are composed of vegetations and hardly present the appearance which you see here.

Now, it is rather difficult to determine the exact nature of this growth without making a microscopical examination. In the first place, its location is rather singular. In order to determine it exactly I shall have to pass the finger into the vagina and into the bladder, for if it be attached to the posterior wall of the bladder, there is quite a likelihood of its being malignant in nature, and, besides, the operation would be much more serious, as we would have to take out a segment of the base of that organ, and thus make a large vesico-vaginal fistula.

On baring the growth you observe that it looks very much like the male organ, the glans of which is the seat of malignant disease. On introducing the finger into the vagina we find that the extent of the growth upward is about two inches below the cervix; that the upper vaginal wall, anteriorly, posteriorly and laterally, is entirely free from disease, and the uterus and its appendages are in perfect condition, so that in removing this growth it will not be necessary to approach any region of danger, unless it be the vascular regions to the right and left of the growth and at the base of the bladder. The special structure which we have to bear in mind in the removing of this growth is the bladder, and after that the urethra.

As the vaginal walls seem to be reflected upon the tumor, I propose to try to separate it with my finger and see if I cannot get at the bed of the growth. If I find that it is closely connected with the urethra, or the sphincter vesicæ muscle, which, as you know, is simply an accumulation of muscular

fibres at the neck of the bladder, I shall have to be very careful, and rather than injure that important structure I shall leave a part of the growth, trusting that it is non-malignant in character; and if afterward I find by microscopical examination that it is malignant, it will then be time to remove the remainder. Introducing my finger into the bladder I can distinctly feel the base of the tumor, and can tell that if it has any connection with the bladder it must be only with the external muscular fibres, from which it can be dissected without trouble. It is not likely, however, that it has any connection with it whatever. I will try, as far as I can, to remove it with the fingers and finger nails, rather than resort to the knife. As this region is pretty vascular, you observe how easily it peels out of its bed or kind of sack-like development from the walls of the vagina. The origin of it was just back of the sphincter vesicæ muscle, and it had grown forward, carrying the mucous membrane of the vagina along with it. It is evident, then, that it was a growth from some one of the follicles, which are found in great abundance in this portion of the vagina. Its exact nature, probably, is that of a myo-fibroma, though it cannot be determined with certainty except by a microscopical examination. Of course it is not malignant. The follicle from which it developed became distended until it reached the size of this sack from which the tumor was removed. The hemorrhage is insignificant, and it will not require any application for the purpose of controlling it. We will, therefore, simply wash it out with hot water and dress it with cotton saturated with an eight per cent. solution of carbolic oil, not alone for the sake of antiseptis, but also to compel it to heal up by granulations from the bottom, and in that way get rid of all possibility of a recurrence of the growth.

CASE II.—The next patient whom I present to you, gentlemen, has a laceration of the cervix, and although I have not time to-day to speak to you in particular of that condition, this case will afford us an opportunity to refer to some practical points connected with the operation itself. This laceration took place several weeks ago, during confinement. As a rule, a lacerated cervix should not be sewed up until eight weeks

after labor, so that the tissues may have had time to undergo complete involution. In the meanwhile occasional vaginal douches with warm and hot water should be used merely for the purpose of allaying local irritation as far as possible; but remember that vaginal douches may be the cause of a certain amount of local congestion, as well as the means in the first place of relieving it. You know that any application which at first is capable of allaying irritation, will, in the course of time, excite it, as, for instance in the case of a poultice. Then, after the disappearance of any subinvolution which may exist, and after the reduction of congestion, the only use I make of vaginal injections is to keep the parts clean and in a healthy condition. Besides the douches in these cases, the usual tonics may be employed—iron, strychnine, etc.

Now, when we come to the operation, both the bowels and bladder should be empty, means to effect this in the case of the bowels being taken the day before, and in that of the bladder just before the operation. The patient should then be placed in Syms' position, and the uterus, which is too high up for the operation, should be gently drawn down by the ordinary vulsellum forceps. If the drawing down traction be made with all gentleness, there will be no danger of doing any injury to the structures which support the uterus, no danger of exciting inflammation, and after the operation any untoward result will be avoided simply by replacing the uterus and using the hot douche. But if you seize the cervix and make constant, persistent efforts at drawing it down in spite of its resistance, you may be sure that you will set up a certain amount of cellulitis. Sometimes, in old lacerations, there is considerable hard cicatricial tissue which has to be removed; but not so in this case, as it is a recent one. It is in the majority of cases unnecessary to cut very deeply into the cervix proper. Not deeper than a quarter of an inch at most, and usually not so deep. Taking the curved scissors you pare the edges of the laceration on either side, and then unite them at the angle by passing through them the silver wire suture. Before passing the sutures, if the blood does not cease to flow at once, you can apply cold water, which will effect the object. After applying the sutures care should be taken not to twist them down too

tightly, lest the tissues be strangulated. They will then be allowed to remain eight or nine days, when they should be removed. This is not a very difficult operation to perform, but it calls for some patience on the part of the operator. Especially are those cases trying to the patience in which there has been an old cellulitis, which holds the uterus high up and compels you to operate at a distance. A difficult part of the operation consists in paring the edges, particularly at the angle of the laceration, and it is there that it is most important to perform this part of the operation well, for there it is that you are most likely to find cicatricial tissue. As a rule there is very little hemorrhage attending the operation, but should you cut too far up you may wound the circular artery; and, moreover, it is possible in deep lacerations to wound the peritoneum, in which case you would have both serious hemorrhage and inflammation. Cutting into the peritoneum, however, is a danger very unlikely to occur, and if the cicatricial tissue which you are called upon to remove is within sight, you may be sure that you are some distance from the peritoneum proper. You observe that this speculum is too long; that when it is inserted it pushes against the uterus, preventing its being drawn sufficiently low down. A shorter speculum, therefore, is better; but we can utilize this one by wrapping the handle with a towel, thus virtually shortening the blade. You notice now that the neck of the uterus is in plain view and that the laceration is bilateral, existing on either side. The old plan of treatment for such a condition as you see here was the application of nitrate of silver, etc., supposing that the raw-looking surface, which is the inverted mucous membrane, was an abrasion attended by ulceration.

LECTURE II.

CASE I.—The case that I now present to you, gentlemen, is not specially connected with our clinic. This woman was confined, and afterwards had a peritonitis, for which she came into the hospital. Afterward it was found that she did not recuperate as she should do, and the reason for it was not very apparent. She was given a purge, for what reason I do not remember, but afterward this worm was discharged from the bowels; its presence had not before been suspected. You know there are three principal varieties

of the tape worm, the one found in this country mostly being the *tænia solium*. It has a head so arranged that it can attach itself with great persistency to the mucous membrane of the intestinal canal, and unless the head be discharged, or at least the portion in the immediate neighborhood of the head, it will almost certainly be reproduced. In some cases where all the worm is removed but the head, the vitality is so impaired that it dies. The best remedy which we have for tapeworm is pumpkin seeds, the seed without the outside shell being better even than the oil. Pulverize a heaping tablespoonful and let the patient take on an empty stomach. It is better, beforehand, to give the patient a cathartic which shall empty the lower part of the small intestine and the colon, an effectual cathartic for this purpose being castor oil; a saline which simply provokes a watery discharge would not well answer the purpose. Then, in the morning let the patient take a light breakfast, as of oatmeal and milk; fast the remainder of the day, and at night take a heaping tablespoonful of pulverized pumpkin seeds: the next morning, still fasting, administer another cathartic dose of castor oil, after which the patient may eat. This, you may think, requires rather severe self-denial to fast twenty-four hours, but you must remember that it is very difficult to get rid of the animal as long as the bowels are not empty.

I will now show you the patient from whom we removed a tumor from the vaginal walls at our former clinic; it was a myofibroma; the sack from which it was removed has now almost entirely healed up, so that the woman will leave the hospital this afternoon.

The patient on whom we operated three times for vesico-vaginal fistula is still in the wards, and it is impossible, as long as she shall remain in her present condition, to get good union. She has syphilis, and although she has been undergoing treatment therefor, we have not yet been able to get her constitution into such a state as to favor a successful plastic operation. This happens not infrequently with those who have syphilis.

CASE II.—This patient is twenty-one years old, and says she was well until five months ago, when her menses stopped. Her usual flow lasted three or four days, and was reg-

ular. Three weeks ago she took, she says, some tansy tea to bring on the flow, and it so far succeeded that a little blood passed. I have questioned her very carefully, gentlemen, in order to obtain some definite symptoms, or symptoms pointing to other than one condition, but we get none. When we come to examine the breasts, we find they are slightly enlarged; that there is a slight darkening of the areola, and there seems to be some enlargement of the follicles. We are not able to press out any colostrum. The umbilicus is not depressed at all, and there is no projection of the abdomen; it is of natural form.—“Now, doctor, in case the woman is pregnant, what should be the condition of the cervix uteri?” “It should be somewhat softened, velvety to the touch, and it, as well as the vagina, should be of a blueish hue.” Do such conditions exist there? “They do.” Is the uterus enlarged? “It is, somewhat, but not as much so as if pregnancy had existed five months.” Yes, doctor, you are right; upon sweeping the finger around the cervix, we find that pretty much the whole roof of the vagina is occupied, more so upon the left side than upon the right, and there evidently has been an old cellulitis of the left broad ligament which has dragged the uterus in that direction. On making bi-manual manipulation, and grasping the uterus between the two hands, I find that the body of it is just about the size of a uterus which has been two months pregnant. (Sends the patient out.) You will notice that there is a discrepancy between her statements and the facts as we find them here. She says she has not menstruated for five months. Now, she has led anything but a responsible life, and it is possible that this fact may have stopped her menses, for alcoholic stimulants will do so often. At any rate, I know she is pregnant, and I am quite positive that her pregnancy is not of five months' duration; it is not more than of two and-a-half or three months' duration. I base my assertion that she is pregnant upon the following facts, and I leave out of the question everything she says in regard to her menses, for it is contrary to the evidence afforded by the actual state of things as determined by an examination: In the first place, the uterus is larger than normal; in the second place, the cervix is softened, and the softening is confined to the lower portion of the organ, as is

the case in ordinary pregnancy; and thirdly, her breasts are fuller than they should be, judging from the nutrition of the remainder of her body; and, there is the areola about the nipple; it is true we do not find any lacteal secretion, but we would not expect much, if any, at the period of pregnancy which we suppose exists here. Then, there is a slight blue discoloration of the vagina and cervix uteri, which is usually found in the pregnant state, although it is not typically shown here.

Now, nothing would please that woman better than for us to introduce a sound into the cavity of the uterus. Indeed, that is what she came here to get done, hoping that it would bring on abortion. But so many such cases come before us, that we are constantly on the watch for them, and usually we diagnose the true condition of things, namely, pregnancy from the second to the fourth month, before they mislead us into passing the sound which would likely be followed by abortion. Now, this woman is one of the worst characters among street walkers, and doubtless she has been on the street more than half her time since she was sixteen years old, and how she could retain so good nutrition as she has at present is a question; but she has gotten into a fix now from which she is bound to be relieved at all hazards, and if she has not sufficient money to pay an abortionist to do it for her, (for the worst of them will not take the risk for less than about ten dollars) she will try to use instruments on herself. Of course she knows that her life may be sacrificed in the attempt, but by women who are a great portion of the time under the influence of alcohol, any danger will be faced to get rid of such a burden—for it is a burden with such women to bear children. She has been using what she calls tansy tea for the purpose of bringing on her menses, but doubtless it was something to bring about a miscarriage.

CASE III.—I now present you a patient who has the same trouble which belonged to a patient at our former clinic, namely, laceration of the cervix uteri, but in the former case I made only a few remarks upon the operation; I will now speak more in detail of the affection.

The special point of interest about this case is that two years ago she was in the hospital with the same trouble;

the cervix was sewed up and she was sent out cured. About six months ago she was delivered prematurely at the seventh month, and the cervix was again lacerated. Now, before having the operation performed again, she asks us a very sensible question: "I am only twenty-eight years old, I have borne seven children, and it is altogether likely I shall become pregnant again, and if this thing is to occur at the birth of every child what is the use of having it sewed up at all? or, is there not some way of stopping pregnancy altogether?" Now, the practical point for us to consider is, can we not stop laceration of the cervix; prevent it from taking place? The most important fact to bear in mind, in order to accomplish this object, is, not to hurry labor too much. It is too frequently the case that the physician on making his call on a woman in labor thinks it unnecessary for him to wait until his services may really be required; he goes away, saying he will be back shortly; on his return he finds the os not yet thoroughly dilated, and not wishing to stay all day or all night, as may be required, for it to dilate in a natural way, he breaks the membranes, lets out the water and causes the head to engage. Now, you may be sure that in a large number of cases where you take away prematurely the natural dilator of the os, viz., the bag of waters, you will have laceration of the cervix. In most cases in which laceration occurs, the bag of waters is ruptured too soon.

This woman, as already said, had a miscarriage at about the seventh month, six months ago; since then there has unquestionably been a condition of sub-involution from which she has suffered; she has not been well since the miscarriage. There is some pain in the back, some constant leucorrhœal discharge, some irritability of the bladder, the latter due doubtless to some of the ichorous vaginal discharges coming in contact with the meatus; and she suffers from general weakness. The laceration here has been an extensive one, extending up to the vaginal junction of the uterus, and it has consequently so interfered with the proper function of the absorbents that the uterus has remained larger than usual, and the symptoms complained of, pain in the back, and possibly the irritability of the bladder, are due to the unusual weight of the uterus causing it to sag

down in the pelvic cavity. The constant flow of which she complains is due directly to the excoriated surface of the cervix. The lacerated cervix coming in contact with the posterior wall of the vagina becomes eroded and throws out a discharge, presenting a condition which until lately was called an eroded cervix, and which was treated by all kinds of local applications. The treatment at the present time, as you are well aware, is to sew up the laceration, after paring the edges, leaving of course the normal opening at the neck of the uterus. I will not speak of the details of the operation itself to-day, as I did so on a former occasion. Now, if it were the perineum that was ruptured, it might be sewed up immediately after labor, or as soon thereafter as you please to do it, but there are objections to sewing up a lacerated cervix until some time after its occurrence. In the first place, the cervix has been so much distorted by the passage of the child that it is difficult to tell what is the extent of the laceration. Besides there is a tendency for a large portion of the wound to heal spontaneously, especially when it occurs in the anterior and posterior lips; lateral lacerations, however, generally only partially heal, and subsequently require an operation. Now, if you do not operate immediately after delivery it is not worth while to talk about it inside of two months, for it takes that length of time for the completion of the process of involution. It is possible that soon after delivery the operation might be performed, but you must remember that then there is the lochial discharge, which in itself is sufficient to prevent primary union, if not secondary also. The general rule then is, to sew up a laceration of the perineum or an injury to the vagina immediately after delivery, but to wait until involution has taken place before operating for laceration of the cervix; that period has elapsed in this case, and as the woman is in good condition I will now perform the operation.

Clinical Lecture.

BY PROF. A. JACOBI.

Delivered at the College of Physicians and Surgeons, New York, November 9, 1880.

THE child before you, gentlemen, is four weeks old, and the mother brings it here because of these swellings which you see on the head. There are two circumscribed swellings, one over each parietal

bone, each extending to the sagittal suture. They contain fluid of some kind, as fluctuation is easily recognized. Now why did not these two swellings form one large tumor? They almost touch each other, but are sharply defined and separate. If we consider this point carefully we shall discover something in regard to the position of these tumors as regards the pericranium, for were they external to that membrane there is every probability that we should have but one tumor here. They are separated by the periosteum itself, which is attached to each side of the suture, thus preventing the two masses from running together. If they were outside the periosteum you would, as I have said before, have one solid mass. This liquid is then situated between the periosteum and the bone. What is its character? It may be serum, or blood, or pus. Is it likely that it is serum? No, because it has been here too long. These tumors have existed since birth, and in four weeks the amount of serum sufficient to be contained in these masses would have been absorbed or have become purulent. These tumors appeared, the mother says, one hour after birth, and have not grown larger since. If this is correct what can they be? Could they contain blood? In that case they would not have remained of the same size, but would have either increased or diminished, and the same would be true did they contain pus. It might be a congenital cyst situated over each parietal bone, or it might be a hernia of the brain containing more or less cerebrospinal fluid in the sac, but in that case it would not have remained so long unchanged. It would have become larger. Besides, such a tumor never occurs in such a situation as this. They always are found over natural openings, one or other of the fontanelles or the temporal suture, but not here. We can then exclude encephalocele or meningocele. Is there then a cyst here? No, these growths are not cysts, because they are said to have grown after birth, though for a short time, and then remained stationary. Besides, this is not the locality for large and soft cysts like these. It remains then that the mother was mistaken, without a doubt, when she asserted that these swellings have been always of this size, neither diminishing or increasing.

If you examine these tumors carefully

you will find that there is around the edge of the soft swelling a hard bony ring. You have outside of that the normal bone, and inside, if you press with your finger, there is a sensation as if you could run it into a soft mass. The presence of that osseous ring is characteristic. The periosteum was torn off the bone during labor, and the new bone has been formed at the point where it still remained attached, so you have this bony ring, and thus the finger, pressing on the soft mass, receives the impression that there is beneath that no bone at all, which is not the case.

Now, what could it have been that came so suddenly as to tear off the periosteum and give rise to this formation of bone? Extravasation of blood between the periosteum and cranium. This not uncommonly occurs, even when the labor has not been difficult. It sometimes is found in cases of breech presentation even. In a number of cases, as in this, the labor has been easy and the cause must be looked for in the child. The blood vessels of the new-born are thin and fragile to such an extent that even slight irregularities of circulation will give rise to countless small hemorrhages. These appear over the surface of the pleura, pericardium, etc. Besides, the bones are not well developed; in the cranial bones the two plates and the diploe are not equally developed, the outer plate being deficient. Thus the slightest pressure or friction, or even, as I said before, a slight irregularity of circulation are sufficient to give rise to these hemorrhages. The blood vessels in the young not being fully covered by bone, it is not uncommon to find such extravasation on both parietal bones. They occur also on the forehead and on the occiput, but in the majority of cases they are confined to one parietal bone.

As far as treatment is concerned, they are to be let alone. If suppuration should occur it would be the result of bad treatment, such as counter-irritation, rubbing, etc., which is what the mother has done in this case. If suppuration were to occur, after a time aspiration might be resorted to. Gentle pressure and the use of mild cold applications may be used if it appears that the hemorrhage is still continuing, but cold must be applied with caution as it is badly borne by the new born. The mother's observation

then in regard to these swellings was incorrect. They did not come at once, but the hemorrhage taking place after birth, as is usually the case, continued for several days, the tumors all the time increasing in size until the pressure from without was sufficient to balance the force of the circulation from within. Then the reparative process began. The watery portion of the blood was absorbed and the solid constituents began to undergo granular degeneration—a process lasting through many weeks. This bony ring is characteristic of hemorrhage between the surface of the bone and periosteum, and sometimes it takes four or five months for it to be absorbed, leaving a thickened surface which may remain for years.

There is something else on this child's head; a little swelling situated between the two larger ones. I will touch it, now that the child is asleep, and then awaken it and see if any change takes place. I believe that when the child cries it is both larger and harder. What then must we conclude? That it is connected either with blood vessels or spaces whose contents depend on blood vessels.

This, then, may be either a vascular tumor, or may be in connection with the arachnoid sac. A mistake might be very easily made here. Almost all hernias of the brain are found in the median line in this situation, and it is possible that there is a slight protrusion of the brain here. It might also be a cyst. Atheromatous cysts are of very frequent occurrence. I do not feel justified in doing anything, however, until we know more about it. This small swelling is only a week old, the mother says, and as the slightest opening into a tumor connected with the cranial cavity has always resulted in meningitis and death, (there have been some escapes in chronic hydrocephalus) before interfering with such a growth, we ought to be fully satisfied with our diagnosis. As the tumor is rather circumscribed, and small, its being an atheroma is most probable.

We will hear the history of the next case read to us as it has been taken outside:—Jennie S., eleven months old, is the youngest child of a family of three children, the other two living and well. The father and mother are both in good health, and there is no history of consanguinity. The mother has had one miscarriage, which took

place at the fourth month. This, however, was five years ago. The second oldest child exceeds the age of this child by eight years. The third child, Jennie S., was born at term, after an easy labor, and appeared to be perfectly normal in every respect and did not excite any alarm in the parents until it was four months old, at which age the mother says the child had not noticed objects nor smiled. The child never has had a passage from its bowels without the administration of an enema. Sometimes the feces would contain a few streaks of light blood. The lower central incisor teeth were cut when the child was eight months old, but none have appeared since then. During the past five or six months, the child has attacks of the following character: Without any apparent cause she begins to laugh heartily, and after two or three minutes this laughter gives place to singultus, and this in turn to sobbing and crying. She has from three to four such attacks daily. She is subject, also, to violent reflex contractions of the muscles, and cannot bear the least noise. There is, however, no history of injury. She cannot hold her head up, and when placed on her back becomes restless and has to be turned on her side. The fontanelles are open and slightly depressed. The pupils respond to light, are regular, but somewhat contracted. The mother says that some blotches came out over the body four weeks ago.

Now, here is a history of retarded mental development, of reflex convulsions which are complete and last two or three minutes, of loss of power over the muscles. We must then see whether there is any trouble about the spine which will, at the same time, account for the inability to hold its head up, and for the other nervous symptoms. The inability to support the head might depend entirely on muscular weakness. It might also be connected with a morbid condition of the brain. Now, there is one symptom of the case to which I wish to call your attention, and that is to the early and persistent constipation from which the child has suffered. That would indicate muscular debility of the intestine, which is, as you know, one of the early symptoms of rachitis. Now, it is possible that the inability to support the head, or to sit up, and the constipation, are due to the same cause, namely,

to general muscular debility, dependent on rachitis.

I do not think that there is any active brain trouble near the base of the brain, because of the absence of peripheric symptoms belonging to the motor oculi, facial and abducens nerve. The fontanelles are sunken, which shows there can not be much effusion between the brain and its membranes, for in that case the fontanelle instead of being depressed would bulge outward. There certainly is not a high degree of hydrocephalus here; besides the pulse can be felt through the fontanelles. There could, however, be something in the brain, not affecting the corpora quadrigemina, which would give rise to nervous symptoms such as these. There may be here an œdema of the brain substance. Certainly if there is anything abnormal in the brain it is not a tumor or an abscess. If it is not a case of non-development there is here an œdema of the brain with slight hydrocephalic effusion, perhaps, and it is probable that it has existed from early infancy, for the history of the case shows that the trouble, whatever it is, commenced from an early date. The child did not smile until much later than is usual with young children. Some such cases originate in fetal life, for it is not uncommon for encephalitis to occur at that period. Besides, cases in which children are born asphyxiated are, you know, very frequent, and not a small number of brain diseases of early infancy, such as encephalitis, idiocy, etc., depend on the asphyxiated condition of the child after birth. In this case, however, there could have been no such cause to account for the brain disease, as the mother was only half an hour in labor, and the child cried at once. It has appeared to me that the vertebral column was not straight, and I thought that some stiffness was present there, but that might come from sitting a long time in the position to which, for months and months, this child here was confined. After all this, I think that the case is one of general rachitis; by that, meaning not a disease of the bones alone, but a disease of the general system, resulting in muscular insufficiency, constipation, inability to raise the head, and in this case, also meningeal effusion; œdema of the brain, which is very common in these cases, and which explains the deficiency in development,

Reports of Societies.

The Sanitary Convention.

Held under the auspices of the State Board of Health, at Battle Creek, March 29, 1881.

(Abstracted from the Battle Creek Journal.)

THE Convention met at 3 o'clock and was called to order by the Secretary, Mr. J. H. Kellogg. An appropriate prayer was offered by Rev. T. H. Jacokes, of Lansing.

At the conclusion of the prayer, Mayor E. C. Nichols delivered his address of welcome, which we give in full below. Mr. Nichols was in his happiest mood and extended the hospitality of our citizens in a pleasing manner to the members of the Convention. The greeting was cordial in the extreme, and the citizens of Battle Creek may well feel satisfied with the reception of their guests, as expressed by their Mayor.

WELCOME ADDRESS.

Gentlemen of the Sanitary Convention:

It is my pleasing privilege in behalf of the people of this city, to extend to you a formal welcome. I do this not only formally, but heartily.

The work in which you are engaged is purely philanthropic and unselfish, having for its aim the prevention of disease rather than its cure.

Your methods differ somewhat from those of an earlier generation. In that quaint but doubtless veracious history of New York, written by Diedrick Knickerbocker, it is stated that the North American Indians, when discovered by our ancestors, were in a state of deplorable ignorance and destitution. But no sooner did the benevolent inhabitants of Europe behold their sad condition than they immediately went to work to ameliorate and improve it. They introduced among them rum, gin, brandy and other comforts of life, and it is astonishing to read how soon the poor savages learned to estimate these blessings; they likewise made known to them a thousand remedies by which the most inveterate diseases are alleviated and healed, and that they might comprehend the benefits and enjoy the comforts of these remedies, they previously introduced among them the diseases which they were calculated to cure.

Happily, modern philanthropy does not follow that precedent. Your aims are to in-

vestigate and apply preventatives rather than curatives, and by intelligent presentation of the cause and source of local disease to so inform the public intelligence and quicken the public conscience, that preventative sanitation may precede infection.

Surely no grander work can engage the energies of those who would truly serve the human race.

When we consider the appalling horrors of the "pestilence that walketh by noon-day" in these eastern countries where the destroyer cuts down the countless thousands until vast districts are almost depopulated; when we turn to our own shores and remember how the plague swept through our Southern cities; when in our own State, even in our own city, malignant disease finds so many victims; and when it is known that plague and pestilence, no less than typhoids and kindred malignant disorders, are almost wholly traceable to lacks in local sanitation and local cleanliness, how shall we over-estimate the value of the work in which we are engaged?

That old denial of brotherly responsibility, "am I my brother's keeper?" crimsoned with the stain of the first murder known to the human family, must give place to that high ideal of Christian civilization which places upon individuals, States and nations the responsible guardianship of all human interests.

Little by little the world is realizing that wrong breeds retribution. It is the apprehension of this great truth that gives force and direction to efforts made to alleviate human suffering and to overturn all forms of oppression.

It is in the line of this great beneficence that your work tends, and it will surely receive the hearty support and commendation of all thoughtful people. Again I bid you welcome.

At the close of the address by the Mayor, Rev. J. C. Jacokes, of Pontiac, addressed the Convention.

The officers of the Convention are: Rev. D. F. Barnes, President; Vice-Presidents, Geo. Willard, Prof. J. C. Spencer, L. McCoy, Rev. Dr. Sidney Corbett, Edward Cox, M. D., Judge B. F. Graves; and J. H. Kellogg, Secretary.

The following is the programme of the Convention during the sessions:

SECOND SESSION, TUESDAY, AT 7:30 P. M.

A Paper—The Invalid Habit. By Prof. Theo. A. McGraw, M. D., of Detroit. Discussion of the subject.

A Paper—On Sanitation of Rural Homes. By A. F. Whelan, M. D., of Hillsdale. Discussion of the subject.

A Paper—The Systematic Study of Causes of Sickness and Deaths. By Henry B. Baker, M. D., Secretary of the State Board of Health. Discussion of the subject.

THIRD SESSION, WEDNESDAY, 9:30 A. M.

A Paper—The Sanitary Relations of a Single Point in the New Physiology of Alcohol. By A. F. Kinne, M. D., of Ypsilanti. Discussion of the subject.

A Paper—On Personal Sanitary Responsibilities. By John K. Allen, of Lansing.

A Paper—Consumption; Is it a contagious Disease? What can be done to prevent it? By Bela Cogshall, M. D., of Flint. Discussion of the subject.

FOURTH SESSION, WEDNESDAY, 2:30 P. M.

A Paper—On Medicinal Nostrums in their Relations to Public Health. By Prof. Albert B. Prescott, M. D., F. C. S., of Ann Arbor.

A Paper—Some of the Evils which Result from the Free and Injudicious Administration of Nostrums to Infants and Young Children. By Amos Crosby, M. D., of Albion. Discussion of the subject.

Reports of Committees.

Voluntary papers and discussions.

FIFTH SESSION, WEDNESDAY, 7:30 P. M.

A Paper—The Health Service of a State. By Geo. E. Ranney, M. D., of Lansing.

Resolutions and discussions.

A Paper—Sanitary Rules verses Medical Theories. By Foster Pratt, M. D., of Kalamazoo. Discussion of the subject.

A Paper—Means of Promoting the Public Health. Rev. J. Morgan Smith, of Grand Rapids.

Closing of the Convention.

The American Medical Association — Proceedings of the Thirty-second Annual Meeting.

From the Virginia Medical Monthly (daily).

FIRST DAY, TUESDAY, MAY 3, 1881.

The American Medical Association met in its thirty-second annual session at 11 o'clock a. m., at Mozart Hall, Richmond, Va., Tuesday, May 3, 1881.

The Association was called to order by Dr. Frank Cunningham, chairman of the local committee of arrangements.

Dr. H. D. Holton, of Vermont, Vice-President of the Association, occupied the chair, with Dr. William B. Atkinson, of Philadelphia, Pa., acting as Secretary.

The exercises opened with a fervent and eloquent prayer by the Right Rev. Bishop J. J. Keane.

Dr. Cunningham then, in brief and appropriate language, introduced Governor F. W. M. Holiday, who had kindly consented to deliver the address of welcome.

The address of Governor Holiday was, like all of his efforts, worthy both of the man and the occasion. In fitting terms he alluded to the importance of the great gathering, and complimented the physicians of the country upon the high tone and usefulness of the profession, and bade every member a warm and heartfelt welcome to the capital city of the Old Dominion. Governor Holiday's remarks were loudly applauded.

The Secretary next called the roll of members who had registered.

A motion to dispense with the calling of the roll was laid on the table.

The names read were, on motion of Dr. Toner, all confirmed in their membership.

On motion of Dr. Brodie, the ex-Presidents were escorted to seats on the platform.

Dr. Cunningham, from the Committee of Arrangements, read to the Association invitations from the Commercial, Richmond and Westmoreland Clubs, tendering the hospitalities of these clubs to the members during the session of the Association. The invitations were accepted, and, on motion of Dr. D. J. Roberts, the thanks of the Association tendered for the same.

After hearing the report of the Committee of Arrangements, the Secretary read letters of regret for non-attendance from ex-Presidents J. Marion Sims, of New York, and W. O. Baldwin, of Alabama; Vice-Presidents W. H. Anderson, of Alabama; H. Carpenter, of Oregon; and Dr. F. Pratt, of Michigan, member of the Judicial Council.

At 12 o'clock m., Vice-President Holton introduced Dr. John T. Hodgen, of St. Louis, the President of the Association, who proceeded to deliver his annual address.

THE PRESIDENT'S ADDRESS.

Colleagues of the American Medical Association:

"In obedience to the time-honored usage of the Association, I shall ask your attention to a few thoughts, such as may be supposed to befit the occasion of our coming together for our annual meeting. But first, in the name of the Association, let me express to the local Committee of Arrangements, and to the medical profession and the citizens of Richmond, our grateful acknowledgments of the hearty reception which has been tendered by your Governor in this, the capital city of the oldest of American States, the historic mother of American Presidents.

"The recent progress of medical science has been marked by exceptional strides, both in the direction of extending the domain and perfecting the methods of operative surgery."

He alluded to the progress in medicine, and then proceeded to bestow a passing glance upon some of the causes which militate against the success of the surgeon by sometimes betraying him into error; again embarrassing him in his choice between conflicting plans of treatment, and too often frustrating his best directed efforts.

He divided surgeons into those seeking to perform every practicable operation, and the other avoiding operations whenever it is possible.

The former include the bold, the enterprising, the ambitious and the reckless of our profession.

The other, the timid, the conservative, the cautious and the procrastinating. The former class is largely made up of young men—enthusiastic and full of inspiration, caught from professors whose task is to make the way clear and easy, students of the current medical literature, which teems with new suggestions and is crowded with reports of remarkable cases and wonderful operations, generally ending, or reported as ending, happily to the patient and to the great credit of the reporter.

Simon excises a kidney, turns an aberrant ureter into the rectum, touches, through the natural passages, a stone in the bladder, and immediately hundreds of ambitious surgeons are seeking kidneys to excise, ureters to turn and renal calculi to touch. Battey removes an ovary for the relief of an obscure nervous disorder, and forthwith ovaries are removed

for almost every imaginable nervous disorder. Billroth cuts out a cancerous larynx, or a diseased pylorus, and at once a demand springs up for similar cases, and the daring operations are repeated in all the four quarters of the globe.

The second class is recruited largely from the first, and often only after many lessons of bitter disappointment drawn from the experience of many and grave disasters.

The practice of seeking cases for operation and of operating by blindly following the dicta of authority, without a full understanding of the condition to be relieved, is well illustrated by two surgical procedures which have been resorted to with far too great frequency, as I believe, by gynecologists during the past and present decades. Of one of these procedures, the division of the cervix uteri for flexures, an operation without proper foundation in pathology, which was generally useless and often dangerous, and which always entailed deformity, Emmet holds the following energetic language: "Since the practice of indiscriminate division of the cervix was first introduced by Prof. Simpson, more malpractice has been perpetrated throughout the world in the name of this simple operation than from any other procedure known to the profession."

So, too, great wrong has been done in seeking to follow the lead of Dr. Emmet in the performance of operations for the cure of lacerations of the cervix uteri. From the large number of operations reported by many practitioners, it may be fairly concluded that it has often been needlessly and unprofitably performed.

A simple knowledge, however accurate, of the parts involved, does not qualify one to make an intelligent prognosis, to decide upon the advisability of an operation or treat judiciously even such diseases as consist mainly in pathological changes in the part in question—to say nothing of the many cases in which subjective symptoms are referred to a particular part, when they are in fact but the local expression of some remote or possibly constitutional trouble.

Herein lies a danger which threatens the profession, through the adoption of exclusive specialties by those not well trained in general medicine. It cannot be denied that the early and exclusive study of the affections of a part tends to narrow the intel-

tual grasp and cramp the powers of the man who yields to the influences incident to such partial training. In the best sense, a specialist is a physician and something more; in the worst, he is something else and something less than a physician.

The rapid progress made of late years in the precision and perfection of regional surgery, the brilliant triumphs secured and the almost unlimited possibilities attained, combined to tempt surgeons to reckless operative procedures. Captivated by the knowledge that almost every region of the body has been and therefore may be invaded without necessarily destroying life, we are in danger of overlooking the general influences which are ever present to modify and control the results of local injuries.

The local conditions calling for surgical operations are, besides, more easily studied by the young surgeons than the general conditions which may forbid them, and are more fully discussed in the text-books and college lectures. To learn what to do and how to do it is always more attractive to the student than to be told what not to do. And this is especially true if the thing not to be done is something which he believes he can do well.

On the other hand, we recognize certain diseases and conditions, in which, however defective our knowledge may be in some respects, we are at least certain that very early operation is indicated, both as involving a minimum of risk, and as offering the best, or perhaps only chance, of saving life or of averting great calamity. In this class we include tumors, benign or quasi-malignant.

The propriety of the early removal of quasi-malignant tumors is nowhere better illustrated than in the case of sarcoma of the choroid—a disease which, by the aid of the ophthalmoscope, can now be positively and accurately diagnosed at a very early stage of development. Left to itself for a few months, it will surely break through the outer coat of the eye-ball and soon develop into a fatal and hideous tumor of the orbit, complicated probably with sarcomatous deposits in distant parts. Removed at an early stage by enucleation of the eye-ball, it may never return *in situ*, and life may be indefinitely prolonged.

In rodent cancer and in epithelioma we now expect a cure by excision, provided it is

done early enough; and even in mammary scirrhus, removal of the breast has exceptionally effected a permanent cure.

Sympathetic ophthalmia affords a striking instance, which may result either from not recognizing a danger in season, or from a want of promptness in dealing with it.

Scarcely any fact is better established than that a high condition of health is not the condition which best fits the patient to bear the forced confinement, the impaired digestion, the imperfect assimilation and the perverted excretion which follow any serious bodily injury or grave surgical operation. In such patients we have learned to dread surgical fever and active inflammatory complications, leading possibly to septicæmia, and ending, it may be, in death.

So, too, that standard of health marked by an unusual ability to bear continuous mental strain, taxing the digestive and assimilative organs to their utmost, is not that under which the effects of shock are best borne, whether it be the shock of a severe injury or of a capital operation.

On the other hand, a man whose life is not marked by excessive tissue change, whose digestive, assimilative and excretory organs are not unduly taxed, and whose nervous system is not attuned to conditions of intense mental strain, is likely to bear well the shock of injury and the nutritive changes incident to prolonged confinement. Again, the chronic sufferer, whose nutritive and excretory organs have become educated, so to speak, to make good the excessive waste incident to any continuous drain, is often much better fitted to endure a grave surgical operation than is the new recruit of the army of sufferers. Very often the surgeon is compelled to act in the presence of morbid conditions of the most complex character.

Thus, in strumous manifestations in connection with chronic, suppurative disease of the joints and bones, the profuse discharge makes the most exacting demands upon the nutritive functions, while the close confinement, pain and loss of sleep unite to destroy the appetite and impair digestion and assimilation. In such a condition (so clearly set forth in the case of hip disease by our distinguished ex-President, Dr. Sayre) we recognize in the cachexia the effect rather than the cause of the local trouble, and by resection or amputation of the offending limb we

may arrest the exhausting discharge and restore the disturbed balances between the processes of nutrition and waste.

The dangers in certain depraved conditions of the body from injudiciously delaying an operation are forcibly depicted by Robt. Barnes. He says:

"My experience leads me to conclude that, in cases of urgent disease, there is more frequent occasion to regret having delayed the operation too long than having had recourse to it too soon. When through obstinate vomiting, for example, nutrition has long been arrested, the starved tissues craving for supplies and falling into disintegration, feed the blood with depraved and noxious materials; the system feeds upon itself and poisons itself; the poisoned blood irritates the nervous centres, and these centres, wrought to a state of extreme morbid irritability, respond to the slightest peripheral uterine or emotional excitation. All nervous energy is thus diverted from its destination and exhausted in morbid action. Irritative fever ensues; the pulse rises to 140 or more; no organ of the body is capable of discharging its functions, for the pabulum of life is cut off at its very source. At this point, labor, whether it occurs spontaneously, as it often does, or be induced artificially, comes too late. The tissues are altered, the powers are impaired beyond recovery, and death soon follows."

Shock may act profoundly upon the whole economy. Arrested digestion, perverted assimilation, suspended secretion and limited excretion may occur to vitiate the nutritive fluids of the body. Elements which should go to feed the tissues and provide materials for secretions remain unappropriated; excrementitious substances accumulate, and the body becomes gradually saturated with effete matters.

Operations for the relief of patients with old and tight urethral strictures, complicated with disease of the kidneys, affords illustration of the serious consequences which may follow shock in an already diseased organism. Internal division or forced dilatation of such a stricture may be attended with a degree of shock sufficient to arrest for the time the heart's action; or it may so act upon the whole nervous system as to check secretion and excretion generally. The diseased kidneys may thus cease altogether

to perform their functions, leading to speedy death from uræmic poisoning; or, in the case of less aggravated renal trouble, the blood, becoming surcharged with morbid material, may no longer suffice to maintain the nervous centres in effective action; assimilation, secretion and excretion may all fail and death ensue from septicæmia.

Anæmia, resulting from sudden loss of blood, is particularly unfavorable to surgical interference; besides the actual deficiency of blood, the diminished tension of the blood vessels favors the absorption of septic products at the site of the injury, while the blood, diluted and vitiated by the additional fluids absorbed from the tissues, becomes loaded with effete organic matter, ready to take on putrefactive changes. A familiar instance of susceptibility to septic influences after a large hemorrhage will occur to every obstetrician who has learned how often metritis and septicæmia follow excessive post-partum hemorrhage.

Besides want of space, another reason for the omission of reference to other conditions which may demand or forbid a resort to the knife, is our want of exact knowledge. Especially is this true of those constitutional conditions we term diathesis. Using the word in its broadest sense, diathesis is any condition varying from the normal standard which disposes to the development of disease in the presence of trivial exciting causes. Other conditions which we habitually include under diathesis are themselves diseases—such, for instance, are scurvy, the scrofulous habit, tuberculosis and syphilis. A diathesis may be transient or permanent, retrogressive or progressive; it may be so marked in its manifestations as to force its recognition upon even the most careless observer, or it may be so obscure as to elude the most painstaking scrutiny, and yet it may respond immediately and disastrously to an injury. In acknowledging our ignorance regarding the precise nature of such variations from the normal standard as we believe must exist in diseases like scurvy, scrofula, tuberculosis, etc., we recognize the existence of wide, uncultivated fields, rich, no doubt, in promise to future investigators. A more perfect animal chemistry, a more thorough histology, and a deeper research into the possibilities of pathological change, will doubtless throw many a ray of light

into regions where the darkness is now too dense for our vision to penetrate. To these fields coming generations of physicians will surely be attracted, in the faith that as man advances in knowledge, and approaches somewhat nearer to the comprehension of the perfect wisdom which designed the wonderful physical organism, through which he is brought into relation with the world around him, he will be enabled to solve more and more of the difficult problems which now perplex and baffle us, and will gradually raise medicine to a position more nearly akin to that now accorded to the exacter sciences.

On motion of Dr. Broctel, the thanks of the Association were tendered the President for his address, and a copy of the same requested for publication.

REPORT OF THE FOREIGN DELEGATES.

Dr. Joseph H. Warren, of Boston, chairman of Committee of Foreign Delegates Abroad, presented his report. The reading of the report was deferred, and it was referred to the Publication Committee.

Below is an abstract of this report:

One of Dr. Warren's most important and pleasing duties was his attendance upon the forty-eighth annual meeting of the British Association, held on August 10, 11, 12 and 13, in that fine old classic town and honorable seat of learning, Cambridge. The meeting was very fully attended by the most noted and renowned men in the English profession, and some from other countries, and was said to be one of the largest and best gatherings of the kind held since the organization of the Association. Dr. Warren presented an abstract of the proceedings of the meeting and a short resumé of the different addresses. Among the more prominent were the address on surgery by Timothy Holmes, on "Fergusson and Conservative Surgery—Excision of the Knee and of the Hip;" the address on physiology by Michael Foster, on "Relations of Physiology and Pathology—The Professional Aspects of Physiology;" and the address of Sir James Paget on "Elementary Pathology," which was one of the very best papers read before the assembled Association. Dr. Warren wished that all the members of this Association could have enjoyed with him the privilege of listening to the liquid eloquence of this eminent pathologist, flowing like a mighty river, and yet with a soft cadence of

voice like a sweet toned but distant bell, with the most majestic and masterly manner, in which few living men can possibly be considered the equal of Paget. Dr. Warren was charmed and grew eloquent in his description of it.

By his enthusiasm and eloquence Dr. Warren showed that he was deeply in love with the idea of a journal published by the American Association, and fully impressed with the power which such a journal would have in developing the mighty but latent energies of the members of the Association, and in advancing the progress of medical science. That such a journal would be the most powerful, best sustained and most interesting in the country, he had no doubt; indeed, he was confident that it would exert a masterly influence in foreign lands and present, more clearly than ever, the wonderful progress which America has made in the advance of medicine and surgery. It could summon as contributors and supporters the best and most highly esteemed men of the profession, North and South, East and West. The wonderful strides which periodical medical literature has made in England since the establishment of the *British Medical Journal*, under the editorship of Mr. Earnest Hart, should be the greater incentive for this Association to abandon its annual publication and establish a weekly journal. No wonder, then, that the editors of the numerous petty journals that are daily springing up on every hand, like thorns and thistles by the wayside, have brought to bear all the influence they can master against the inauguration of a national journal. Dr. Warren thinks it unreasonable to suppose that this journal would injure the success of the various State journals already established, but would consider it a blessing if the contributors to the smaller and more local journals should throw their whole energies into the support of a single universal publication. This national journal would not only advance the science of medicine, but it would convert the American Association from a routine body, having but a single annual publication, into a society of mighty influence and daily increasing in interest.

That the expense of a weekly publication should be an argument against its adoption, Dr. Warren considers unfair and unfounded; the advertisements alone would pay the cost

of publishing; but even if any one should have a doubt of this, who is there, truly imbued with the love of medicine, that would not contribute the small sum necessary to support a journal, which would certainly, and of necessity, bring honor and renown to the society of which he is proud to be enrolled a member. This extra expense, if any there be, would inevitably be the smaller as the weeks advanced, for this new journal would not only awaken a new interest in the Medical Association, but it would speedily increase its membership. The opposition shown by some medical journals to this national journal reminded Dr. Warren of the opposition brought to bear by quacks, spiritualists, and other irregular practitioners in the State of Massachusetts when the bill for regulating the practice of medicine was before the State Legislature. Twice have they, in the selfishness of their hearts and their "dog-in-the-manger" spirit, defeated the passage of such a wise law, casting, as a slur upon the regular profession, that they were urging the adoption of this measure only for their own selfish purposes and aggrandizement. What is the result? Massachusetts is the haven and heaven for all irregular practitioners and bombastic advertisers, who care far more for the increase of their own little pecuniary store than for the advance of medicine or the success and happiness of suffering humanity.

Of the further transactions of the British Medical Association, Dr. Warren spoke of the address of Sir Henry Thompson, entitled "Remarks and Progress in Stricture of the Urethra," and also an address by the same surgeon upon the "Removal of Stone by Lithotripsy." Dr. Warren himself showed some twelve or fifteen of his newly devised surgical instruments, and read a paper on "Operations for Cure of Hernia by Subcutaneous Injections," which seemed to be well received. In the section of Physiology there was an interesting discussion by Preyer, Brown-Sequard, Prof. Bowditch, of Boston, Dr. Beard, of New York, and others, upon that most recent study, "Sleep and Hypnotism." In obstetric medicine, the address by Playfair on "The Teaching of Obstetric Medicine" was very opportune, as showing that the instruction in this department should be much more thorough than they are wont to be. In the Section of the

Diseases of Women, Dr. M. A. Pallen, of New York, read a paper on the "Etiology and Treatment of the Laceration of Cervix Uteri," a subject in which the English seem to display a want of knowledge.

But to Dr. Warren, the most beautiful and ennobling sight witnessed at the meeting, and, in his opinion, one of the most interesting items of his report, was the ceremony of conferring the honorary degrees—interesting to Americans because the coveted and distinguished title was bestowed upon Prof. Samuel D. Gross, of Philadelphia, as the father of American Surgery.

After announcements by the Secretary of meetings to be held yesterday afternoon, the meeting adjourned until 10 o'clock this morning.

SECOND DAY—WEDNESDAY, MAY 4, 1881.

The Association was called to order at 10 o'clock by President John T. Hodgen.

The exercises were opened with prayer by Rev. Dr. Peterkin, of St. James' church.

The Secretary announced the names of the Committee on Nominations. This committee immediately retired to Wilkinson's Hall for organization and for the performance of the work assigned to it.

The Association next considered

THE SPECIAL ORDER.

Action on amendment to Code of Ethics, Article I, paragraph first, add "and hence it is considered derogatory to the interests of the public and honor of the profession, for any physician or teacher to aid in any way the medical teaching or graduation of persons knowing them to be supporters and intended practitioners of some irregular and exclusive system of medicine."

Dr. Cohen, of Philadelphia, called for the reading of the entire paragraph with the amendment.

After the Secretary had read the paragraph with the amendment, Dr. Marcy moved to lay the amendment on the table. The motion was lost—ayes, 74; nays, 76.

The Chair was about to put the question, when an appeal was taken, and the decision of the Chair was reversed.

Dr. Dunster, of Michigan, addressed the Association in opposition to the amendment. The first objection is that the amendment is contradictory to the Code as it now stands. We should do all in our power to extend the bounds of the usefulness of the profession.

This amendment prescribes its limits. We are told that medicine is a liberal profession, this amendment absolutely denies the right of a medical education to a certain class in our midst, and makes the profession a most illiberal and proscriptive one. Being contradictory to the Code in these instances, it is contradictory to the spirit of the Code. Another technical objection is that the amendment is illogical, as a child can see that there is no connection with the paragraph to be amended and the amendment as offered. The honor of a teacher does not depend upon those whom he teaches, but upon himself. Another objection, it is that the amendment must always be inoperative, even if adopted. There is no power to enforce this amendment, either by legal, moral or social measures. The enforcement of this statute would close every public clinic in America, because we are forbid to aid in any manner certain classes. There is also an objection because it is based upon the most fallacious assumptions. Now, if we teach the truth and the sciences as we believe, we know that no harm can result; if we adopt the amendment we concede that the dissemination of science leads to error. Are you ready to say that no man shall teach the truth to all classes? Truth is the antidote of error, and sooner or later must conquer it. So far from denying truth to the unbeliever, we should do all in our power to extend its dominion.

Dr. Dunster next proceeded to fortify his position by many illustrations and examples. By all the considerations I have mentioned, I appeal to you to reach your conclusion with great deliberation, make your decision solely with the view of upholding the lasting honor of our noble profession, and take no step that can be construed by the world at large as a confession of want of faith in the perpetuity of rational medicine. Do this, and we shall have no occasion to regret the work of to-day, for it will remove in a large degree, the reproaches so often heaped upon us for our intolerance and bigotry, and it will open up a new era of generosity and toleration. Do the opposite and adopt this amendment, and it is a stride backward in the historic march of medicine. Finally, in all your discussion and in your decision, forget me and the great University I have the honor to represent, for if you stand the dis-

aster and the discredit that must come with the adoption of this amendment, we can certainly stand your censure.

Dr. Davis, of Chicago, moved that the amendment be the special order after the addresses to-morrow. Dr. Howard, of Maryland, moved that the matter be indefinitely postponed. The substitute was rejected, and the motion of Dr. Davis adopted.

The report of Dr. William Brodie, of Michigan, from the delegation to the Canada Medical Association, was next in order, but that gentleman not being present, was passed by.

Dr. John H. Packard, from the Committee on Journalizing Transactions, presented a report which recommended the establishment of a weekly journal as the organ of the Association.

The report closed with the following resolution:

Resolved, That the President be authorized to appoint a committee of five to digest and report in detail as soon as practicable, upon the time, place and terms of the publication of such a journal, to elect an editor, fix his salary and to arrange all other necessary details.

The report was discussed by Doctors Davis and Toner. Dr. Davis moved to strike out so much of the resolution as related to the election of an editor. Adopted.

Dr. Toner moved that the Secretary and Treasurer be added to the committee. Adopted.

Dr. Toner offered a resolution instructing the Secretary to publish with the forthcoming report of the transactions of the Association, the index of the proceedings of all the previous meetings. Adopted.

The report on Clinical Observations and Records, to be submitted by Dr. N. S. Davis, of Illinois, was continued until to-morrow.

REPORT ON NECROLOGY.

Dr. J. M. Toner, from the Committee on Necrology, made the following report:

"In presenting the report of the necrology of the Members of the American Medical Association to this meeting, it is but simple justice that I acknowledge the valuable assistance I have received from associates on the committee resident in the several States. While the Society has reason to be grateful for the fidelity with which some of the members have discharged the duties assigned them, there are a few who have totally neg-

lected the obligation they owe to this body, and by such a course defraud the dead of that respectful notice which this Society has in its wisdom deemed proper, and made provision to give to every member who has preserved an interest in it to the end of his life. Notice in the necrological report of the American Medical Association, in point of honor, may be considered a sort of Westminster Abbey interment or monumental record among the highest medical worthies in the United States, and is a cherished privilege that is assured under the rules to every member of the Association. This right to a notice in the report can only be lost by some unworthy act of the member himself. We should be just to the dead, and every member should feel a personal interest in the matter and see that a respectable memorial record is neither neglected too long nor entirely omitted. The revised list of all members who at any time attended a meeting of the Association with the years of his attendance given in the volume for 1880, and an alphabetical list which accompanies this report of the names of all the deceased physicians who have had notice taken of their death by this body from its organization, will make the task of performing that duty on the part of the Committee of Necrology in the future an easy one.

"One error I find to be prevalent in the minds of my associates, which is, that members consider it their duty only to prepare notices of those who may die within the year for which they are serving on the committee, while the facts are that all members who have died in good standing, whether in actual affiliation with this body at the time of their demise or not, are legally, under the rules, entitled to notice, no matter how many years have elapsed since their death.

"I trust the index accompanying this report of deceased physicians who have received notices and whose names are scattered throughout its many volumes of transactions, will prove to be of convenience and value in making whatever has been published by us on the subject available. If I may be indulged in the remark, it is my belief that a subject index to all the articles contained in the complete series of our transactions would render them much more valuable to the student and the public than they are at present."

After the announcement of meetings and other notices by the Secretary, the Association adjourned until to-morrow at 10 o'clock A. M.

THIRD DAY—THURSDAY, MAY 5, 1881.

The Association was called to order at 10 o'clock by the President, Dr. John T. Hodgson.

Prayer by Rev. Dr. Wm. E. Hatcher, of the Grace street Baptist Church.

The report of the Committee of Arrangements for the day's proceedings was read by Dr. Frank D. Cunningham, and adopted.

On motion of Dr. Gross, the rules were suspended. He then offered a resolution to so amend the By-Laws as to establish an additional Section, to be known as the Section of Dentistry.

A motion so as to further suspend the rules for the immediate adoption of this resolution having been objected to by Dr. Toner and others, was defeated, and the amendment lies over one year.

"OPERATIVE INTERFERENCE IN GUNSHOT WOUNDS OF PERITONEUM," was the title of a paper read by Dr. Hunter McGuire, Richmond, chairman of the Section on Surgery. Few surgeons have had greater experience in treating gunshot wounds occurring both in military and civil life, and few have appreciated more fully how unsatisfactory are the results obtained from the expectant or do-nothing plan so much in vogue. The title of the paper indicates the grounds taken by the writer in favor of operative interference, and the views embodied in the paper tend to prove the position advanced by the writer, that the patient will exchange an almost certain prospect of death for at least a good chance of recovery, and should, we think, embolden surgeons to think less of expectant treatment and more of operative interference. Statistics from the Crimean, the French, and the late civil war in America, show that more than nine out of every ten cases of wounds of the belly, opening into the cavity of the peritoneum, perish—no other gunshot wounds being so deadly, not even penetrating and perforating wounds of the skull. In incised, punctured and gunshot wounds of the peritoneum, the general plan of treatment has been to enjoin absolute rest, give opium to prevent peristaltic action, and encourage the formation of adhesions, in the idle hope of preventing extravasation

into the peritoneal cavity. It is claimed that the wound may paralyze the muscular coat of the bowel; or in small wounds the mucous coat is everted and closes the aperture, or the part injured may not be covered with peritoneum and no extravasation take place within the peritoneal cavity, or that the serous membrane covering the intestine near the point wounded may become adherent to the omentum, to the bowel or to the abdominal wall, and the orifice in the bowel become permanently closed; and last, but very rarely, the extravasated mass may become encysted, end in abscess, and discharge itself through the neighboring skin or mucous surface. In the opinion of the writer, when we remember that the alimentary canal is never completely empty, common sense teaches us, when an opening is made in any portion of the peritoneal cavity that its contents will escape; that there will probably be less resistance to the passage of fecal matter through the unnatural aperture than along the sides of the canal itself. Gas may first be expelled, separating peritoneal surfaces, and then the fluid or solid contents of the bowel follow. Only one or two exceptions to this rule are reported in the history of the late war between the North and South. But, besides alimentary effusion, blood, air, bile and urine may also be extravasated into the peritoneal cavity. Penetrating wounds of the belly, with fecal effusion, are rapidly followed by general acute peritonitis; 90 per cent. die, and within 48 hours. Does peritonitis from any other cause, as a rule, kill as quickly? In spite of the assertion of Malgaigne and others, that the organs contained in the belly fill the cavity to such repletion that shot wounds of that space without visceral injury are impossible, post mortem examinations and experiments upon dead bodies show that wounds of the peritoneum can be made without injury to the contained viscera. It has fallen to the lot of the writer to witness four such cases. Two occurring in civil life, and being the subjects of legal investigation, careful autopsies were made. Two were soldiers dying from peritonitis, and the autopsies showed no visceral lesion. These four cases, coming under the observation of one individual, and having their exact character shown by post mortem examinations, prove that such results are not impossible, and probably not as rare as we have

been led to suppose. Those rare cases of recovery from penetrating wounds of the abdomen have induced surgeons to continue the expectant plan of treatment in place of what appears, at first sight, to be a desperate surgical interference. Some of the alleged recoveries may have been wounds of a portion of the large intestine not covered by peritoneum. Recovery, with fecal fistulæ, is not uncommon in this case; others may have been penetrating wounds without visceral injury; others again may have been parietal wounds without peritoneal penetration. In connection with the four cases of gunshot wounds of the peritoneum alluded to by the writer, and in which there was no visceral injury, the total absence of shock was remarkable, and no diminution of temperature. One of them (a soldier) assured the writer that he did not know that he had been wounded until some time after he had been shot. Another (wounded in a duel) insisted that he was able to stand up and give his antagonist another fire. On the other hand, in all cases with visceral lesions, the shock of injury is a prominent symptom. The presence or absence of shock seems to be a diagnostic point of no little value. If to this be added sudden meteorism, the character, extent and direction of the wound, bloody discharges from the bowels or stomach, an almost certain diagnosis by rational symptoms will be reached. In reply to the question, Why are these injuries so fatal? why, after escaping death from peritonitis, shock and hæmorrhage, peritonitis is fatal in 48 hours? The writer attributes death to some kind of blood-poisoning connected with peritonitis, just as we often see septicæmia associated with peritonitis under other circumstances, notably after parturition and ovariectomy. He believes that the blood-poisoning after gunshot wounds of the peritoneum is consequent upon the pent-up, red, sero-fibrinous exudation which traumatic peritonitis invariably produces in abundance, and that if this effusion could be drained off as soon as it is formed, septicæmia might be prevented. In lacerated wounds of the abdominal walls, with exposure of the cavity, protrusion of the contents and the introduction of foreign matter into the cavity, are nothing like so mortal.

In all of these cases the nature of the wound prevents union by the first intention, and drainage of abdominal effusions is

effected. In the fifty-nine cases of recovery after penetrating wounds of the large intestine, fifty-five were perforating wounds, the large aperture of exit being usually on the posterior surface of the body, dependent and facilitating drainage. In one of the four instances of recovery in simple penetrating shot wound of the large bowel, the edges of the opening in the bowel was fastened to the wound in the abdominal wall, and in this, as well as in the other three cases, fæcal fistulæ were formed. Shot wounds of the pelvis are nothing like so fatal as wounds of the peritoneum higher up. Unless accompanied by grave visceral lesion, three cases out of four of penetrating or perforating wounds of the pelvis recover. Can this fact be satisfactorily explained upon any other theory than that drainage in these wounds is almost unavoidable? Indeed, in these cases we are taught to explore the wounds with the finger, remove loose pieces of bone and foreign bodies, and keep the aperture of entrance and exit open, that free vent may be given to all inflammatory products; and if the size and position of the wound do not facilitate this, we make the opening bigger and insert a drainage tube. Spencer Wells attributes the fatality after ovariectomy to some form of pyæmic fever or some form of blood-poisoning so often associated with peritonitis, and thinks the lesson taught by many successful ovariectomists of providing for the escape of inflammatory matter, of great value, and one which should be profited by by the surgeon who treats gunshot wounds of the peritoneum. Ovariectomists even go so far as to wash out the cavity when peritonitis exists and death from septicæmia is imminent. In many of the cases of penetrating wounds of the peritoneum, the ball passes obliquely through the abdominal wall and the aperture shuts up like a valve, or if passing directly through the parietis, the aperture of entrance contracts at once and closes. To all intents and purposes the cavity is hermetically sealed, and the missile, pieces of clothing, blood from wounded vessels, fæcal effusion, if the intestine is wounded, and inflammatory products, are all hopelessly imprisoned there. Can it be wondered that such wounds are fatal? In no other gunshot wounds of cavities do we allow the wound of entrance and exit to be closed. Who would think of shutting up the opening in gunshot wound

of the knee joint? During the late war, the plan of hermetically sealing up wounds of the pleura, a structure analogous to the peritoneum, proved most disastrous. In gunshot wounds of the chest involving the serous membrane, we keep the wound patent, and if not dependent, we do not hesitate, when effusion takes place, to make a counter-opening with a knife or trocar, and sometimes to flush out the cavity with detergent and antiseptic lotions. In view of these facts, the writer ventures to advocate operative interference in gunshot penetrating wounds of the peritoneum with intestinal injury, in penetrating wounds of the peritoneum with any visceral lesion, and similar cases without visceral injury. The wounds in the abdominal walls should be enlarged, or the linea alba opened freely enough to allow a thorough inspection of the injured parts. Hæmorrhage should be arrested. If intestinal wounds exist, they should be closed with animal ligatures, trimming their edges first if they are lacerated and ragged. Blood and all other extraneous matter should be carefully removed, and then provision made for drainage. If the wound of entrance is dependent, drainage may be secured by keeping this open. If the wound is a perforating one, and the aperture of exit dependent, the patency of this should be maintained, and, if necessary, a drainage tube of glass or other material introduced. If there is no wound of exit, and the wound of entrance is not dependent, then a dependent counter-opening should be made and kept open with a drainage tube. If it is urged that the means suggested are desperate, it can be said in reply that the evil is desperate enough to justify the means.

At the close of the reading, Dr. McGuire was loudly applauded, and his paper appropriately referred.

The next business in order was the report of the Committee on Clinical Observation and Records.

Dr. J. T. Reeve, of Wisconsin, chairman of the Section on State Medicine, who was to have read a paper, being absent, his time was occupied by Dr. J. S. Billings, U. S. A., who read a paper on "Some of the Results of the Tenth Census, as regards Mortality Statistics."

This paper was prepared to be read before the Section on State Medicine, but was of

such great interest that Dr. Billings was requested to read it at the general session.

At the meeting of the American Medical Association in Atlanta, in 1879, the chairman of the Section on Hygiene, in his address, called attention to the opportunity presented by the coming census for obtaining more satisfactory mortality statistics for the whole country than have heretofore been collected.

A letter from the Superintendent of the Census was read, in which he requested the co-operation of the medical profession of the country, both as to general influence and technical assistance, in obtaining the records desired. Early in the census year forms were prepared for a small registry of deaths to be kept by physicians. Each register contained twenty-four such slips, and a copy of the register, with a stamped envelope for its return at the end of the census year, was sent to every one in the United States who was reported by his or her postmaster to be a physician or to be addressed as such.

The registers having been received were examined by a skilled physician, who indicated on each slip the name of the cause of death to be used in tabulation. Very few of the registers were in such a condition that they could not be used for statistical purposes, although as a matter of course, some of the causes of death reported could only be classified as unknown. This had been foreseen, and in the address above referred to it was expressly provided that the physician should use such terms as "paralysis of the heart," "apnœa," etc., as equivalent to "unknown."

This point was not, however, made quite so clear as it should have been in the registers, as will be seen by examining the foot note of instructions, although the intent was probably understood by the great majority of physicians. The number classified as "unknown" was 4,162 out of a total of 166,896, being about 25 per 1,000.

The number of post mortems made in this number of deaths was 3,755, or 20.7 per 1,000.

When the examination and checking of these registers was completed, they were taken apart, and as each leaf furnished the record of a single case, they could then be used as cards, and readily assorted and clas-

sified in various ways. The first classification was into groups by counties. Those coming from the large cities were then set aside, and the remainder, representing the character of the fatal diseases in rural districts and small towns, were so compiled as to show by age, sex and color, the number of deaths from each cause.

The units of area or locality used in this compilation was neither the State nor the county, but groups of counties in each State, selected according to altitude and topographical characteristics by the geographer of the census. Each State contained from two to six such groups, and thus we can group the prevailing causes of death on the sea coast, on the table lands, among the hills, etc.

As the number of deaths returned by physicians upon these registers has no definite relation to the actual number of deaths which occurred in any given locality, and still less to the actual population of that locality, these registers can only be used in this connection to show the proportional frequency of certain causes or groups of causes of death to the whole number of deaths reported in them or to each other. They have other and important uses, as I will explain presently.

The nomenclature and nosological classification adopted are essentially those used in the last census, being that prepared by the Royal College of Physicians.

The most important differences in it from the old nomenclature of the college, are the abolition or the division of general diseases into two groups—A and B—after the placing in the general diseases of the various forms of diarrhœal diseases, which before were placed under diseases of the digestive organs. These modifications have been approved by the National Board of Health, and are now under consideration by the committee of the college, which is engaged in the revision of the nomenclature.

After the compilation above referred to had been completed, the slips were used to correct and complete the lists of deaths prepared by the enumerators. The blanks for these lists, which are known as the mortality schedules, differ from those used in previous censuses by having columns for the nativity of the father and mother of the decedent, the length of his residence in the country,

the place where the disease was contracted, if not in the county, and the name of the attending physician. They also contain two supplementary schedules, one giving the names of those dying in the place, but belonging to families living in another county or State; the second giving names of persons belonging to families residing in the place, but who have died away from home in another county or State.

The first rough count shows that about 620,000 deaths have been returned upon these schedules. To these, there will be added from the register slips above described about 50,000 deaths, and the records of the cities from which no enumerator's schedules are received, will add about 80,000 more, making a total of about 750,000 deaths returned for the year, which, for a population of fifty millions, give a death rate of fifteen per thousand. While it is certain that this does not include all the deaths, it is evident that it is much more complete than previous censuses—the total number of deaths for that of 1850 having been 323,098, being a mortality rate of 13.910 per thousand. In 1860 there were returned 394,153 deaths, being a mortality rate of 12.510 per thousand. Upon this last Professor Elliott constructed life tables, assuming a deficiency in returns of deaths of 41 per cent., or, in other words, that the true death rate was a little over 18 per thousand. If this were assumed as the true death rate for the last census year, the deficiency in returns would be less than ten per cent.

From this brief statement it will be seen that General Walker is to be congratulated upon the improvement which has been effected in the Tenth Census in regard to the completeness of the mortality statistics, and also that the medical profession of the country has contributed largely to the securing of this relative completeness.

In order to obtain as much information as possible with regard to the amount and distribution of the actual deficiencies in the mortality lists, the entire registers of deaths of two States and several large cities for the census year have been copied, and will be compared with the mortality schedules furnished by the census enumerators from the same localities. The results of this comparison will probably be interesting and valuable.

An attempt has been made in the Tenth Census to obtain the number of the population on the first of June who are so sick or disabled as to be unable to pursue their ordinary avocations, and also to give the causes of such sickness or disability. This attempt has never been made before in this country; and in other countries has only been systematically made, as far as I am aware, in the three censuses of Ireland for 1851, 1861 and 1871. It is too soon yet to speak of the results of this attempt, as the computations have not been made, but it is evident that either the returns will prove to be too imperfect to be of much, if any, statistical value, or the amount of sickness is much smaller than has been usually supposed. Taking the State of Rhode Island, where the census was taken under the direction of a skilled superintendent, Dr. Snow, who had so small a territory to deal with that he could make sure of the knowledge and training of almost all his enumerators, and where it is to be presumed the population schedules have been filled out with the greatest accuracy and completeness. It is found by a count that the number reported sick and disabled, aside from those reported as blind, deaf and dumb, insane, crippled, etc., was a total of 3,276 out of a population of 276,528, being in the ratio of 11.8 per thousand. Comparing this with the results of the Irish Census of 1861, I find that the proportion of sick at their own homes reported in Ireland varied from 1 in 142 to 1 in 942 in the different localities specified, which is in the ratio of 7.04 and 1.06 per thousand respectively. It is usual to compute that for every case of death in a community there are two cases constantly sick.

It will be seen if the estimate is correct, the Rhode Island Census comes much more near completeness than that of Ireland. The only other source of comparison which I have thus far found available is that of the health of the army, in which I find that among the white troops for the year 1877, the average number constantly on the sick roll was 44 per thousand of mean strength.

Upon the whole it seems probable that the results from the Rhode Island count are nearer the truth than any other data which we possess.

In conclusion, I think the Association will

be glad to know that the work of tabulating these returns of deaths is going on rapidly, and that the results will be published in a form which will be found more satisfactory than the forms heretofore used, because it will present the comparison of mortality rates of countries and groups of countries as well as of entire States. The importance of these mortality records is very great, in fact, because for very large portions of this country they give almost the only positive data we can get for comparison of the truthfulness of different localities; in fact, because they will seem both as a pattern and an incentive for scientific work in this direction on the part of manufactures and States.

Below is a brief abstract of the report of Dr. Davis. The report, which was an able and exhaustive one, closed with the following recommendations:

1. That a committee of five be appointed by the President of this Association, to be called the "Standing Committee on Atmospheric Conditions, and their Relations to the Prevalence of Disease."

2. That said committee be authorized to select such representative places as will best indicate the atmospheric conditions in the more important climatic sanitary districts of the United States (to be not less than six nor more than twelve in number,) and establish therein means for continuous observation and record of appreciable conditions of the atmosphere, according to the most approved methods, and of the origin and prevalence of all acute diseases.

3. The resolution recommends in determining the organic and other oxidizing elements of the atmosphere, the use of the Walline paper, as prepared by Schone; and for determining the presence and relative quantity of ammonia and other organic products, the use of the pumice-stone method recommended by Prof. Remsen in his recent report to the National Board of Health.

4. The committee require a full statement of the results of the work done at each station, on the first of January and July of each year.

5. Appropriate \$500 to carry out the purposes of these recommendations; a full statement of the amount received and expended to be reported at the next annual meeting.

The report concludes as follows:

In submitting the foregoing report, your committee are not unmindful of the magnitude of the work proposed, and of the difficulties that will be encountered in its prosecution. But if it is undertaken and prosecuted with persevering industry, much aid may be obtained from the co-operation of local medical societies and boards of health, and results of great value will be obtained, that, from the nature of the problem involved, cannot be obtained without such combined action of many working on parallel lines, under a uniform supervision. And should the foregoing recommendations meet your approval, it will inaugurate a change in medical society work, by substituting, in part at least, carefully devised plans for continuous investigation for adding to the stock of medical knowledge and establishing more complete methods, instead of depending wholly on individual and fragmentary contributions, and will thereby greatly enhance the value of social organizations in the profession.

The report is signed by Doctors N. S. Davis, J. M. Toner, and Henry O. Marcy. Doctors S. M. Bemis and W. H. Geddings, the other members of the committee, were absent and did not sign the report.

The report was adopted and referred to the Committee on Publications.

The recommendations of the committee were adopted.

FOURTH DAY—FRIDAY, MAY 6, 1881.

The Association was called to order by the President.

Prayer by Rev. C. H. Read, of the Grace-street Presbyterian Church.

The following committee was announced on Clinical Observations and Records: Dr. N. S. Davis, Chicago; Dr. J. M. Toner, Washington, D. C.; Dr. H. O. Marcy, Boston, Mass.; Dr. W. H. Giddings, Aiken, S. C.; Dr. S. M. Bemis, New Orleans.

The Association then resumed the consideration of the amendment to the Code of Ethics.

Dr. Billings then offered the following substitute for the original:

"It is not in accord with the interest of the public or the honor of the profession that any physician or medical teacher should examine or sign diplomas or certificates of proficiency for, or otherwise be specially concerned with, the graduation of persons whom they have good reason to believe in-

tend to support and practice any exclusive and irregular system of medicine."

The substitute was adopted.

The Committee on Nominations reported the following additional officers, who were elected:

Section on Practice of Medicine.—Chairman, Dr. J. A. Ochterlony, Kentucky; Secretary, Dr. Deering J. Roberts, Tennessee.

Section on Surgery and Anatomy.—Chairman, Dr. J. C. Hughes, Iowa; Secretary, Dr. William A. Byrd, Illinois.

Section on Obstetrics.—Chairman, Dr. H. O. Marcy, Massachusetts; Secretary, Dr. C. V. Mottram, Kansas.

Section on Medical Jurisprudence and State Medicine.—Chairman, Dr. A. L. Gihon, Washington, D. C.; Secretary, Dr. J. H. Sears, Texas.

Ophthalmology, Otology and Laryngology.—Chairman, Dr. D. B. St. John Roosa, New York; Secretary, Dr. J. Solis Cohen, Philadelphia, Pa.

Diseases of Children.—Chairman, Dr. S. C. Busey, Washington, D. C.; Secretary, Dr. William Lee, Baltimore, Md.

Dentistry.—Chairman, Dr. D. H. Goodwillie, New York; Secretary, Dr. P. W. Brophy, Illinois.

Judicial Council.—Drs. S. N. Benham, Pennsylvania; J. M. Toner, Washington, D. C.; D. A. Linthicum, Arkansas; William Brodie, Michigan; H. S. Holton, Vermont; A. B. Sloan, Missouri; R. Beverly, California.

Dr. D. S. Reynolds, of Kentucky, delivered the address of the chairman of the Section on Ophthalmology, etc., which was appropriately referred. The reports of the Committees on Necrology and Secretaries of Sections were not submitted.

Dr. William M. Beech, of Ohio, chairman, submitted the report of the committee appointed on social position of members of the medical staff of the army and navy, in which he asked that the committee be continued. In doing so, he argued that the principle of promotion which prevails among army officers should prevail the same that it does in the other departments of the Government.

He spoke earnestly upon the subject, and was frequently applauded. He complained that while officers of the army and navy were retired on half pay, surgeons in the army and navy who had been in the service

for years, did not have the same recognition from the Government. He showed that this principle extended to the judiciary as well.

Dr. Brown, United States Navy, suggested that the report was wrong in its title, complaining of the lack of social recognition of medical officers of the army and the navy. He thought the matter of official recognition would right itself.

Dr. Billings, United States Army, concurred in what Dr. Brown said, and thought the subject had better drop.

Dr. Beech was willing to strike out the language relating to social recognition, but he thought some legislation should be enacted by Congress to secure equal preferment with other officers of the army and navy.

On motion of Dr. Davis, the matter was laid on the table.

The Convention adopted the following:

Resolved, That the thanks of this Association are hereby tendered to the Committee of Arrangements of this Association for the faithful attention they have given to their duties and requirements; to the medical profession and citizens of Richmond for their hospitality and endeavors to make the time spent by us while here pleasant and agreeable; to Drs. McCaw and McGuire for the elegant special entertainment given by them at the Westmoreland Club; to Mr. McClure, Superintendent of the Telephone Company, for special facilities given the Committee of Arrangements and the Association; to Vice-President Parsons, of the Richmond and Alleghany Railroad, for his kind invitation for a free ride on his road to show us the interior of the State of Virginia; to Mr. Powell, manager of the Richmond Theatre; to the managers of the Mozart Association, and all others who have contributed to our pleasure and comfort; to the press, and especially their reporters, in giving such a full *résumé* of the proceedings in the daily papers; to the railroad companies generally who have so liberally reduced the rates of transportation for our benefit, and any other modes of conveyance that have so contributed; to Mr. Valentine for his kind invitation to his studio.

Be it especially resolved, that our thanks are particularly due to the ladies of Richmond for attention and kind interest in making our sojourn so very pleasant and agreeable.

The hour having arrived for adjournment, Dr. N. S. Davis, of Chicago, alluded to the very harmonious session which had been held, and complimented the retiring President for his efficiency in the discharge of his duties.

The retiring President (Dr. Hodgen) returned his thanks to his friends in Richmond who had so kindly entertained the members of the Association. He was reminded that his ancestry first breathed the air of heaven in this delightful country, and now, as he remembered the bright smile of his dear, dear mother, he would in future remember the impression that had been made upon him by the people of Richmond, Va. [Applause.]

The Association was then declared adjourned *sine die*

THE ASSOCIATION OF MEDICAL EDITORS met at Exchange Hotel on Monday evening at 8½ o'clock. In the absence of Dr. J. F. Shrady, President, Dr. Ochterlony was called to the chair, Dr. D. S. Reynolds, Secretary.

Dr. Shrady's address was read by Dr. Carpenter, and on motion it was ordered that the same be printed.

The Committee on Necrology (Drs. Dunster, Cole and Edwards), was appointed. The committee reported the death of Drs. Davis and Cowling during the past year, and requested indulgence for the preparation of their report on memoirs, which was granted.

The Committee on Nominations of Officers for the ensuing year reported as follows: President, Dr. Landon B. Edwards, Richmond, Va.; Vice-President, Dr. Ralph Walsh, Washington; Secretary, Dr. D. S. Reynolds, Louisville.

After an interchange of views, the Association adjourned to meet on Monday evening preceding the annual meeting of the American Medical Association.

American Medical College Association—Fifth Annual Meeting.

Pursuant to the call of its President, the American Medical College Association convened in Wilkinson's Hall at Richmond, Va., at 11 A. M., May 2d, 1881.

The meeting was called to order by the President, Prof. S. D. Gross, M. D. Prof. McCaw, of Richmond, being introduced, cordially welcomed the Association to the hospitalities of the City of Richmond, Prof. R. Beverly Cole, of San Francisco, was also introduced to the Association.

Reading the minutes of the previous meeting was dispensed with, as the same had been printed and were distributed to the members of the Association.

After the credentials of delegates had been presented it was found that a quorum was not present. On motion the meeting adjourned till 3 P. M.

No quorum being present at this hour, an adjournment was made to 9.30 A. M., May 3.

A quorum still being wanting, an adjournment was made to 9.30 A. M., May 4.

On meeting, pursuant to adjournment, the following colleges were represented:

Jefferson Medical College—Prof. S. D. Gross, M. D. Medical Department of the University of Louisville—Prof. J. M. Bodine.

Hospital College of Medicine—Prof. Dudley S. Reynolds.

Medical Department Iowa State University—Mr.

H. C. Bullis, of Regents, and Prof. W. F. Peck.

Starling Medical College—H. G. Landis.

Medical Department Universities Nashville and Vanderbilt—Prof. W. T. Briggs.

Missouri Medical College—Prof. G. M. B. Maughs.

Kansas City College of Physicians and Surgeons—Prof. T. B. Lester.

Medical Department of Michigan University—Prof. E. S. Dunster.

Ohio Medical College—Prof. Jas. T. Whittaker.

Medical College of the State of South Carolina—Prof. R. A. Kinlock.

Cincinnati College of Medicine and Surgery—Prof. D. D. Bramble.

Cleveland Medical College—Prof. I. N. Himes.

Nashville Medical College—Prof. Duncan Eve and Deering J. Roberts.

Chicago Medical College—Prof. N. S. Davis.

Kentucky School of Medicine—Prof. John A. Ochterlony.

Michigan College of Medicine—Prof. Wm. Brodie and H. F. Lyster.

Medical Department of Arkansas Industrial University—Prof. P. O. Hooper.

On motion, the regular order of business was suspended and the election of officers taken up. The result of the election was as follows: President, J. M. Bodine; Vice-President, W. T. Briggs; Secretary and Treasurer, Leartus Connor.

The following report of the Secretary was now read:

The total membership of the American Medical College Association now includes thirty-three active members. Since our last meeting three active members have been admitted, viz., the Medical Department of Willamette University, the Medical Department of Arkansas Industrial University and the Michigan College of Medicine.

One college has resigned its membership in the Association, viz., the Rush Medical College. As our membership at last annual

meeting was thirty-one, there has been a gain of two active members during the past year.

Out of twenty-eight colleges reporting, the following only have conferred the honorary degree of M. D.:

Medical Dept. of Arkansas Industrial University,
Nashville Medical College,
Chicago Medical College,
Cleveland Medical College,
Louisville Medical College,
Kentucky School of Medicine.

Of twenty-eight colleges reporting, the following granted remissions or reduction of fees:

Medical Department of the University of Tennessee
(Nashville Medical College),
Columbus Medical College,
Missouri Medical College,
Medical Department of the State of South Carolina,
Jefferson Medical College,
Medical Department of the University of Louisville,
Medical Dept. of Arkansas Industrial University,
Kansas City College of Physicians and Surgeons,
Cleveland Medical College,
Hospital College of Medicine, Louisville,
Detroit Medical College,
Louisville Medical College,
St. Joseph Hospital Medical College,
Atlanta Medical College,
Savannah Medical College,
Medical Department of University of Louisiana,
Medical Department of the University of Nashville
and Vanderbilt,
Kentucky School of Medicine,
Starling Medical College.

Colleges reporting as required by by-law, art. vii, sec. 1, are as follows:

Kentucky School of Medicine,
Medical College of the State of South Carolina,
Nashville Medical College,
Savannah Medical College,
Cincinnati College of Medicine and Surgery,
Evansville Medical College,
Medical Department of the University of Iowa,
Medical College of Alabama,
Medical Department of the Universities of Nashville
and Vanderbilt,
Louisville Medical College,
Kansas City College of Physicians and Surgeons,
Medical Department of the University of Wooster,
Detroit Medical College,
Cleveland Medical College,
Columbus Medical College,
Miami Medical College,
Chicago Medical College,
Missouri Medical College,
Medical Department of University of Louisville,
Jefferson Medical College,
Hospital College of Medicine, Louisville,
Starling Medical College,
Atlanta Medical College,
Medical Department of the University of Louisiana,
Medical Dept. of the Arkansas Industrial University,

St. Joseph Hospital Medical College,
Medical Department University of Michigan,
Michigan College of Medicine.

The catalogues and announcements presented with these reports have been bound and are presented with this report.

Five colleges have failed to make the required reports, viz.,

Medical Department of Willamette University,
Medical College of Indiana,
Ohio Medical College,
Texas Medical College and Hospital,
Woman's Medical College, Chicago.

Accepted and adopted.

TREASURER'S REPORT.

Receipts:—

| | |
|--------------------------------------|----------|
| Balance on hand at last meeting..... | \$ 22 10 |
| Thirty assessments at \$5 each..... | 150 00 |

| | |
|------------|----------|
| Total..... | \$172 10 |
|------------|----------|

Expenditures:—

| | |
|-------------------------------------|---------|
| Janitor fee at New York meeting.... | \$ 5 00 |
| Printing, binding, etc. | 50 60 |
| Stationery and express..... | 8 50 |
| Postage..... | 18 00 |

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|------------|---------|
| Total..... | \$82 10 |
|------------|---------|

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|----------------------|---------|
| Balance on hand..... | \$90 00 |
|----------------------|---------|

Assessments for last year are still due from:

Medical Department of University of Iowa.
Starling Medical College.
Woman's Medical College of Chicago.

Adopted.

On motion, it was resolved that all the expenses of the Secretary called for by his attendance upon the meetings of the Association be paid from the funds of the Association.

On motion, an assessment of \$5 per college was ordered for the ensuing year.

REPORT OF COMMITTEE ON AMERICAN MEDICAL COLLEGES.*

This committee was directed by resolution to "report to the Association at its annual meeting a list of all colleges that violate its requirements, with a full statement of the provisions violated."

Your committee have procured and carefully examined sixty-four announcements of different colleges for the year 1880-81. For more readily comparing them with the former report, we have arranged the violations in the same form as last year.

Five colleges that do not require of candidates for graduation evidence that they have studied medicine three years.

*Only an abstract of this report is given here.

Two colleges do not require a preceptor's certificate.

Four colleges do not require attendance upon two courses of lectures.

Six colleges give the degree of M. D. to students who have attended their last course elsewhere.

In four colleges the regular term is less than twenty weeks.

Five colleges give beneficiary tickets irrespective of the limitations prescribed by the American Medical College Association.

Two colleges grant Ad Eundem degree on terms other than those required by the Association, viz., on simple examination on the practical branches.

Three colleges give their lectures during the evening.

SUMMARY.

Sixteen colleges violate some one or more of the requirements of the American Medical College Association.

Last year an examination of about the same number of catalogues exhibited the fact that thirty-five failed to show that they conformed to all the requirements of the American Medical College Association.

Forty-eight catalogues were found to conform to the above requirements.

This shows a marked improvement. Still more care in the preparation of the several announcements would place several of the sixteen in the conforming list.

It is proper to add that in all the essential elements of a medical college a very considerable number of colleges (twenty-two) surpass the requirements of the Association.

These require one or more of the following desiderata of the best medical college, viz.: Nine months yearly attendance; preliminary examination; three terms instead of two; real clinical work under the personal direction of a sufficient number of competent teachers.

Thus, there are sixteen of sixty-four colleges behind the requirements of our Association, and twenty-two ahead of them in one or more points mentioned above.

(Signed) LEARTUS CONNOR,
J. M. BODINE,
E. S. DUNSTER,
Committee.

Adopted.

The names of the colleges are still withheld from publication in the belief that

most will soon come up to the requirements of the Association.

The new President, Dr. Bodine, on taking the chair, appointed the same committee on Medical Colleges.

On motion, the Association adjourned to 5 P. M., at Wilkinson Hall.

There being no quorum present at adjourned hour, the Association will next meet in accordance with its by-laws.

J. M. BODINE, M. D.,
President.

LEARTUS CONNOR, M. D.,
Secretary.

The Detroit Lancet.

LEARTUS CONNOR, A. M., M. D., EDITOR.

American Medical Association — Its Thirty-Second Annual Meeting.

IN preceding columns we have presented in detail the prominent events of this meeting. A few general remarks may fittingly accompany these. As to numbers, the meeting was sufficient to crowd the Richmond hotels far beyond their capacity. The character of the delegates varied little from that of previous years; in fact, the standard bearers of the Association are ever on hand, whether it be in the South, North, East or West. It is true that more or less accessions are made from members near the place of meeting, but of these few follow it far into distant cities. We were especially impressed with the expediency of holding the annual meetings at the nation's capital—Washington—every year. A national society like this could nowhere be so pleasantly accommodated as in the vast hotels of the capital. The national museums, capital buildings, Congress, etc., would furnish food for profitable observation during the leisure hours of the meeting. All trunk lines lead directly or indirectly to Washington, so that it is most easy of access. The Association could have its own building, its own library and provide readily for its own wants without any tax upon the profession of the place. Indeed, we think that it would do well to accept nothing that it does not pay for. In this way it would be entirely independent of any invitations from any city. At least, the Association would do well to return to

its old rule of meeting in Washington every alternate year.

The hospitalities of the profession of Richmond were unbounded. The historic associations of the city were of great interest to most of the delegates.

Among the matters of general interest disposed of at the general meeting was the amendment to the code of ethics, relating to the responsibilities of medical teachers in the matter of training professed homœopaths for medical practice. Dr. Dunster repeated his speech made at Atlanta on this same subject, advising the fullest liberty in the matter, on the ground that when once the truth was presented, homœopathy would disappear from the land. A most able reply was made by Dr. N. S. Davis, in which it was made clear that too much sophistry had been cast about the whole matter, and that the imparting of useful knowledge should be done for a useful purpose in order to accomplish good. After much discussion, the following substitute was adopted: "It is not in accord with the interest of the public or the honor of the profession that any physician or medical teacher should examine diplomas or sign diplomas or certificates of proficiency for, or otherwise be specially concerned with the graduation of persons whom they have good reason to believe intend to support and practice any exclusive and irregular system of medicine." As an expression of professional opinion, this is sufficiently explicit. It probably does not satisfy either party in the controversy, like most compromises.

The matter of a medical journal of the Association, modeled after the journal of the British Medical Association, made some progress, but the journal is not yet. Many serious difficulties beset the successful inauguration of the scheme and its successful execution. No one doubts that if such an editor as Earnest Hart could be secured, the matter would be a success. In this it is clear that the committee has not yet found such a man. Plenty of men stand ready to undertake the job, but with most it is safe to say that the profit would be all on the side of the would-be editor. No doubt, in time the man can be found, and then we may have a weekly medical journal under the auspices of the Association.

The section meetings were, on the whole,

rather slim in the food set before them. But, after all, the grand objects of the meeting were abundantly reached—the unrestrained commingling of considerable numbers of the profession from every State in the Union. The effect of this in broadening views, in removing misunderstandings, in stimulating to heartier future effort for the common good, cannot be too highly regarded.

The Standing of College Graduates Before a State Examining Board.

In the North Carolina *Medical Journal* for April we find a partial report of the proceedings of the Board of Medical Examiners of the State of South Carolina for a period of two years. During this period there have been seventy-five applications for a license to practice medicine in the State. Of these, after a personal examination of the applicants, sixty-three were granted and twelve refused. Of the seventy-five, seventy-one were graduates of medical colleges and four were non-graduates. Of the four non-graduates, one was rejected. Of the seventy-one graduates, eleven were rejected. Thus it appears that the proportion of rejected candidates was far greater among the college graduates than among the non-graduates. In short, as far as this report goes, it seems that a student's chances of passing the examination required for a license to practice in the State of North Carolina are far better if he have no diploma. That such would prove to be the case we can understand from the loose manner in which the instruction is given in most medical schools. The foregoing facts are of great value as serving to give the profession some definite idea of the exact worthlessness of the instruction afforded in the medical schools. In the report to which we have called attention the names of the medical colleges are given and all other facts of importance as bearing upon the case.

Medical examining boards that can give us some such help as this one we gladly welcome. If medical colleges are to be conducted mainly as advertising schemes, to advance the private interests of a few at the expense of the many, and the instruction of the students be treated as a secondary matter, it is time that the facts were brought fairly before the profession and kept there until they were understood.

Memoranda.

The Illinois Southern Hospital for the insane, at Anna, was partially burnt on April 18; only one of the inmates was burned. Three insane asylums have been burned in less than a year.

The Courts have awarded \$3,500 damages to a little girl of New York for the loss of a piece of her nose, from the bite of a monkey that had escaped from the Bowery museum.

George Eliot said, "Ignorance is not so damnable as humbug, but when it prescribes pills it may happen to do more harm."

A Philadelphia quack tells the public, "If a patient wants it gentle and mild, I'm a homœopath; and when anybody wants thunder and lightning, I'm an allopath."

The *Sanitary News* says: "The northern lake resorts, Mackinaw, Lakes Huron and St. Clair and Northern Lake Michigan are generally free from those sources of contamination which arise from the presence during the winter of large numbers of people. The Michigan pines and the mountain forests offer facilities for camping parties, and no better method of spending the hot season can be desired." This is well put for a sanitary journal.

Dr. Brochin, of Paris, reports the case of a young strumous girl, subject to an eczema of the lips, who on two separate occasions found this affection to re-appear on taking a draught of chloral.

Dr. Nettleship calls attention to the fact that in tobacco noctylopiæ, the central field of vision, is first affected and throughout remains the seat of the greatest relative defect, while the periphery of the field remains of full size. The patients have no difficulty in walking about, but when reading they very often move the printed book about as if trying to discover some position in which it could be better seen. They see better in the morning, towards evening, and on dull days.

Parke, Davis & Co. have bought the pharmaceutical branch of the business of Reed & Carnrick, of New York.—*Peter's Price List.*

A Boston physician who advised a dyspeptic to take plenty of exercise, was quite taken aback when the patient remarked that he was a mail carrier.

The *Medical and Surgical Reporter* says that the action of the American Medical Association in deciding against the propriety of regular medical teachers signing the diplomas of those who avowedly intend to practice homœopathy, etc., will meet with general approval.

The opening exercises of the Medico-Chirurgical College, of Philadelphia, took place at the rooms of the college, south-west corner of Broad and Market streets, April 4.

Serious disturbances have occurred in the relations of the faculty and trustees of Dartmouth College, of Cornell University, of the University of New York, and of Detroit Medical College.

It is of interest to note the varying expressions of opinion respecting the consultation of Dr. Quain with Kidd, a homœopathic practitioner, over the case of the late Lord Beaconsfield. One class of the profession believe with Sir William Jenner, who replied to the invitation to meet Kidd in consultation as follows: "Holding, as you and I do, different views as to practical treatment, I do not think Lord Beaconsfield's interests could in any way be served by our meeting in consultation; on the contrary, it could not be without risk to him." Another class that hanker for the rich fees from consultation with homœopaths, affirm that Dr. Quain did the proper thing. Concerning it, the *London Lancet* says: "Dr. Quain has violated a fundamental principle of professional conduct in acting with Dr. Kidd, an eminent homœopath, in treating the Earl of Beaconsfield according to the regular practice of homœopathy. This is the conclusion which is forced upon us, and is one in which we believe the profession will feel compelled to acquiesce."

At its late meeting, the Kentucky State Medical Society unanimously adopted the following: "It is the judgment of the Kentucky Medical Society that the American Medical College Association should be encouraged in the attempt it has been making to institute reforms in the methods of medical teaching, and we pledge it our hearty support."

In New York city, the mortality bills are far higher than during previous seasons, even true typhus is said to have broken out in some localities.

At its last session, the following law was passed by the Massachusetts State Legislature, relative to color blindness: Sec. 1. "No railroad company shall employ or keep in its employment any person in a position which requires him to distinguish form and color signals, unless such person within two years next preceding has been examined for color blindness or other defective sight, by some competent person employed and paid by the railroad company, and has received a certificate that he is not disqualified for such position by color blindness or other defective sight. Every railroad company shall require such employee to be re-examined at least once every two years, at the expense of the railroad company." Sec. 2. "A railroad company shall be liable to fine of one hundred dollars for each violation of the preceding act." The act goes into effect the first of July.

The *Chicago Times*, during the first week in May, stated "The death rate of Chicago is now greater than at any time for many years past; the health of the city is worse still. The mortality among children is simply frightful, while adults are suffering and dying from lung and bowel complaints in every section of the city. Our drinking water is unfit for use; our streets and alleys are reeking with filth; our sewerage system is incomplete and imperfect." It is said that twenty per cent. of the population of the city were more or less affected by these causes. What with drinking its own sewerage, breathing the foul air from the cattle yards, from foul water in the canals, and from the filth everywhere abundant, Chicago is certain to give abundant employment to doctors.

Small pox is epidemic in London, England. During April, there were 1014 cases of small pox in the hospitals, and 1500 had been refused admission. All this was made public in an official report; how much there was unreported none can tell.

From a study of four hundred cases of locomotor ataxy, Erb concludes that as a large number of cases have a syphilitic history, a causative relation exists between the two.

The first move in the establishment of a Section on Dentistry was made at the last meeting of the American Medical Association.

If this shall encourage the dentists to first secure a regular medical education, it will be a means of progress. A special education based on the foundation of such an education must result in wiser practice of dentistry.

The *Medical Record* thinks "The action of the American Medical Association respecting the teaching of homœopathic practitioners prospective; is a lamentable confession of the lack of faith in the perpetuity of rational medicine, is absurd, is bigotry; is contrary to the spirit of our institutions, etc."

Concerning the action of the Trustees of Detroit Medical College in refusing to respect the wishes of the majority of the faculty, in the appointment of a new member of the faculty, the *Cincinnati Lancet and Clinic* says: "This action strikes us as a rather high handed affair, which can but result disastrously to the city and the college."

The same journal remarked, respecting the discussion of the ethical question of educating homœopaths: "Dr. Dunster made a very successful presentation of his side, in two points: (1) That the amendment would close all the clinics in the public hospitals; (2) That useful knowledge should be universally disseminated. Dr. Davis, of Illinois, showed the sophistry of the first point in the fact that questions of policy had nothing to do with questions of truth; and of the second, in the statement that 'useful knowledge should be disseminated only for a useful purpose;' 'there are a few plain and honest practitioners of medicine,' he said, (it is impossible to depict the irony of the remark,) 'who can not understand how regular physicians can help to graduate a class of men with whom they are not allowed afterward to consult.'" A good many full hearts found utterance in the ringing tones of the member from Illinois.

The West Virginia Legislature has recently enacted laws to regulate the practice of medicine, practice of pharmacy, and also that of dentistry; to make medical men privileged witnesses before the Courts, and revoking the charter of the "Livingstone University of America," a notorious diploma mill.

The *Rocky Mountain Medical Review* has been removed to Denver, Col.

Rhode Island has settled the ownership of prescriptions. Its laws give the prescription to the patient; the druggist is made the custodian, and the doctor who wrote it only has the right to look at it.

Of the position of an editor, the *London Times* says "If an editor omits anything, he is lazy; if he speaks of things as they are, people get angry; if he glosses over or smooths down the rough points, he is bribed; if he calls things by their proper names, he is unfit for the position of an editor; if he does not furnish readers with jokes, he is an idiot, if he does, he is rattle brained, lacking stability; if he condemns the wrong, he is a good fellow, but lacks discretion; if he lets wrong go unmentioned, he is a coward; if he exposes a public man, he does it to gratify spite, is a tool of a clique, or belongs to the outs; if he indulges in personalities, he is a blackguard; if he does not, his paper is dull and insipid."

During the meetings of the American Medical Association, at Richmond, daily reports were made by each of the medical journals of that city. That made by the *Southern Clinic* was the briefest, and furnished free. That by the *Virginia Medical Monthly* was quite full and complete, and furnished at the reasonable rate of ten cents per copy. Either journal will doubtless be ready to supply any who may desire copies at these rates. Their enterprise deserves the fullest commendation and encouragement. The difficulties of such an enterprise are only appreciated by medical editors and publishers.

From the *Free Press* of May 27, we take the following list of the new faculty of Detroit Medical College:

Professor of Principles and Practice of Surgery and Clinical Surgery—Theo. A. McGraw, President of the faculty.

Prof. of Gynecology and Obstetrics—N. W. Webber.
Professor of Orthopedic Surgery, Genito-Urinary Diseases and Clinical Surgery—H. O. Walker, Secretary of the faculty.

Professor of Principles and Practice of Medicine and Laryngology—E. L. Shurly.

Professor of Materia Medica and Therapeutics and Clinical Gynecology—J. H. Carstens.

Professor of Diseases of the Mind and Nervous System—J. G. Johnson.

Professor of Clinical Obstetrics—F. A. Spalding.

Professor of Anatomy—A. E. Carrier.

Professor of Clinical Medicine—A. S. Heaton.

Prof. Ophthalmology and Otolaryngology—Eugene Smith.

Adjunct Professors of Principles and Practice of Medicine—E. A. Chapoton and David Inglis.

Lecturer on Physiology—J. E. Brown.

Lecturers on Chemistry—Nicholas Lehnem and Chas. G. Jennings.

Instructor in Microscopy and Normal Histology—Frank Brown.

Instructor in Obstetrics—A. F. Hoke.

Instructor in Materia Medica and Therapeutics—T. N. Reynolds.

Instructor in Experimental Physiology, Morbid Histology and Curator of Museum—O. W. Owen.

Instructor in Minor Surgery—John Boice.

Instructor in Clinical Medicine—R. A. Jamieson.

Demonstrator of Anatomy—A. M. Hawes.

Instructor in Pharmacy—A. S. Parker.

Clinical Assistant to the Chair of Ophthalmology and Otolaryngology—C. R. Eggeman.

Director of the Clinic at St. Mary's Hospital Dispensary—Albert Campau.

Director of the Clinic at the College Dispensary—Lewis Marie.

We have not as yet learned the principles or details of the long promised "new policy."

On May 20, the Recorder's Court of Detroit convicted Richard Butler of grave robbing. This is one of the first instances in which such a result has followed such an offense.

Editor's Book Table.

The Books Noticed in these Pages are for Sale by THORNDIKE NOURSE, Detroit, Mich.

Day on Diseases of Children.*

The author of this work is well known to the profession from his treatise on headaches. In this we find the same careful observation, the same good judgment, accompanied by the same logical reasoning. More than is common with British authors, he is familiar with the writings of American physicians on these subjects. To all questions he brings the test stone of clinical experience. In classification he has followed the method of modern pathologists. At the beginning of each chapter he has placed a descriptive heading of its contents, so that the student can quickly obtain the information he desires. In prescribing, he keeps certain broad principles in view as regards dose and combination, but the practitioner can readily vary the details according to the peculiarities of

*THE DISEASES OF CHILDREN; A Practical and Systematic Work for Practitioners and Students. By William Henry Day, M. D. Second Edition. Philadelphia: Presley Blakiston. 1881. Cloth; pp. 752. Price, \$5.

the several cases met with in practice. He directs attention to the fact that of some remedies children require larger doses, in proportion to their size, than adults. Thus, belladonna may cure incontinence of the urine and relieve whooping cough when its physiological effects are fully produced. Arsenic often cures chorea in large doses, while it frequently fails in small doses. Calomel, iron, ipecacuanha and free purgatives are well borne by children, while strychnia, prussic acid and opium require care in exhibition.

Respecting the relative importance of the local as compared to the constitutional signs of disease, he says: "At all ages and in both sexes it is my belief that we are never likely to be so successful in controlling disease as when we mainly direct our attention to the treatment of the constitutional state."

This does not imply carelessness of, or indifference to physical signs. Many a sound practitioner has lost his little patient whilst watching the pulse closely and listening with care to the respiration, when he might have saved life by leaving these symptoms to take care of themselves and looking to the general state as the sure index of danger. Neither the pulse, the skin, nor any light which auscultation and percussion affords are such valuable signs of disease in children as in adults.

The account given of infant diet is excellent. Little exception can be taken to the positions there laid down. As to the employment of the condensed milks, he thinks that in the large towns they are preferable to the varieties of milk there sold. The chances of lactic acid fermentation are reduced to a minimum. It is purer and less liable to be overweakened by water. He lays special stress on the peculiar forms which disease assumes in childhood, as distinguished from the forms of the same disease prevalent in adults; on the rapidity with which functional sometimes passes into organic mischief, during the period of bodily and mental development, so that no ailment should be considered too trivial to receive attention; on the necessity of looking to the diet and adapting the quality and quantity of the food to the age and natural strength of the child. In the treatment of marasmus or atrophy, he calls attention to

the several preparations of pancreatic juice, and also to Dr. Robert's methods for artificially digesting milk or gruel.

The accounts of the several special diseases are full without tediousness, concise without obscurity and everywhere full of common sense. It is a good book, fitted to advance the study of this branch of medical practice. After the manner of English writers on this subject, the author appends numerous formulæ. Used as suggestions and examples, these may serve a useful purpose. Altogether we can heartily commend this volume to any students of this subject that desire to obtain the latest and most judicious compend of our knowledge of children's diseases.

Green's Introduction to the Study of Pathology and Morbid Anatomy.*

The fourth American from the fifth English edition lies before us. This statement fully sets forth the estimate placed upon it by the profession and medical students. The author has in every edition brought it abreast with the latest researches in this branch of medical science. New illustrations have been added from the author's own work. It is exactly what is claimed for it by its author, a concise introduction to the study of pathology and morbid anatomy. Those desiring such help as can be afforded from such a work will derive both pleasure and profit from its study.

Bartholow's Treatise on Medical Electricity.†

The author says that he has attempted to prepare a work not too voluminous, not too scientific, sufficiently full and not wanting in accuracy; a book so simple in statement that a student, without previous acquaintance with the subject, could readily master the essentials; so complete as to embrace the whole subject of electricity, and so condensed as to be contained in small compass. It is presumed that the reader either has no knowledge of the subject or that he has forgotten all he did know.

*AN INTRODUCTION TO PATHOLOGY AND MORBID ANATOMY. By T. Henry Green, M. D. Philadelphia: Henry C. Lea's Sons & Co. 1881. Pp. 347. For sale by John Willyoung, Woodward Avenue, Detroit, Mich.

†MEDICAL ELECTRICITY; A Practical Treatise on the Applications of Electricity to Medicine and Surgery. By Roberts Bartholow, A. M., M. D., LL. D. With Ninety-six Illustrations. Philadelphia: Henry C. Lea's Son & Co. 1881. Pages, 262. Cloth. Price, \$2.50.

The account of electricity is rendered in the same terms as have been generally employed. As a proper statement of the various questions of electrical science requires the use of the higher mathematics not generally possessed by practitioners and medical students, such statement is omitted. As a whole, the book must be looked upon as an exposition of electricity for remedial purposes, written by a medical practitioner for the use of medical practitioners. From this standpoint the work is worthy of the careful study of all who desire to investigate this subject for purely practical purposes.

Concerning the value of electricity in diagnosis, he concludes as follows: "The condition of the paralyzed muscles, when affected by causes within themselves, may be ascertained by the application of galvanism and faradism. Both currents are necessary, and the reactions obtained are indispensable to the diagnosis of the condition of paralyzed muscles. The reactions of degeneration afford precise indications of the state of the muscles in certain forms of paralysis.

The motor nerves also react in a definite way to electrical stimulation, and they must be examined separately from the muscles to arrive at exact knowledge of their condition.

The reactions of degenerations afford very important diagnostic indications as to the seat of spinal lesions, and separate broadly the so-called spinal from the cerebral paralysis.

Writer's cramp and allied defects from over use of certain muscles he regards as more successfully treated by galvanism than any other means. With it he combines rest and systematic gymnastic training. He does not allude to the value of the type writer as a means of getting rest and needful exercise. Several cases have come to our notice in which all the symptoms of writer's cramp entirely disappeared during the constant use of the type-writer for that work which could be performed on the machine. As most of the cases of writer's cramp are due to muscular fatigue and cramp, the most appropriate remedy is galvanism, but this must be conjoined with rest, massage and gymnastics. The anodes should be placed over the cervical plexus, and the cathode brushed over the muscular groups in turn from the shoulder down. If the defect be confined to the thumb and finger muscles—to the thenar

group, the interossei and flexors of the fingers—the applications should rather be confined to these parts and consist in the descending labile current. If the lesion consist in relaxation, paresis, and degeneration of any of the muscles, faradism may then be employed with advantage. In a similarly practical manner the several diseases are gone over in which electricity may be used with any advantage.

It is thus apparent that this work meets a want of very many students and medical practitioners. We greatly err if it be not gladly welcomed by them. The author, from his long experience as a practitioner, is admirably fitted to perform the task of writing a work of this kind for this special class of men.

Elwell's Medico-Legal Treatise on Malpractice, Medical Evidence, and Insanity.*

The first edition of this work appeared in 1859, the fourth lies before us. During more than twenty years it has stood prominently before both the medical and legal professions. In all this period of probation, it has ever been helpful to all consulting it. The present edition seems little different from former ones. With the conservatism of advancing years, the author seems to have thought that his work contained all that was useful in such a work, and hence passes unnoticed more modern changes in some subjects. It is certain, however, that the student of this branch will not willingly pass unnoticed this classic volume. A special fitness for his work the author derived from the fact that at different periods he practiced both law and medicine. It is issued in elegant style.

Garretson's System of Oral Surgery.†

The third edition of this work lies before us. In completeness of detail, in accuracy of statement, in breadth of common sense, and beauty of illustration, it leaves little to be desired. The affections of which it treats

*A MEDICO-LEGAL TREATISE ON MALPRACTICE, MEDICAL EVIDENCE, AND INSANITY; Comprising the Elements of Medical Jurisprudence. By John J. Elwell, M. D. Fourth Edition, Revised and Enlarged. New York: Baker, Voorhis & Co., Publishers. 1881. Sheep, pp. 600.

†A SYSTEM OF ORAL SURGERY; Being a Treatise on the Diseases and Surgery of the Mouth, Jaws and Associated Parts. By James E. Garretson, M. D., D. D. S. Illustrated by five hundred and forty Wood Cuts and nine Steel Plates, Cloth, price, \$8.00.

relate to organs that are not only essential to the comfort and health of the individual, but also to his comeliness. The face is ever in sight and the mouth is seldom hid. Deformities or defects in either are peculiarly offensive to others and troublesome to their possessor. Dr. Garretson is peculiarly fitted to prepare such a work. For fifteen years he was a practitioner of dentistry, and since, for many years, he has been a practitioner of general surgery. As the teeth occupy so large a space in the associate parts relating to the face, their diseases must be fully dealt with.

A careful comparison of the present with a former edition renders it evident that the author has brought his work up fairly abreast with the times. After the profession have called for three editions of one work, further notice seems needless. No physician or surgeon who attempts to care for the affections of the mouth or face can afford to neglect the aid that Dr. Garretson has placed at his disposal.

Abstracts from Exchanges.

Prepared by Judson Bradley, M. D., Albert B. Lyons, M. D.
and E. A. Chapoton, M. D.

Physiology.

VIVISECTION.—The appearance of a new bill for the total abolition of vivisection in England, is the occasion for an editorial in the May number of the *London Lancet* headed "The Plain Truth about Vivisection." The editor takes the ground that vivisection is a scientific necessity and that it is as idle to try to stay the progress of science as of the ocean tides. Nearly all we know of the living organism in health and disease has been learned by vivisection, either intentionally performed or accidentally accomplished, and it has been practiced in all countries and ages, more or less extensively. It is the analytical method of studying organic life, as the geologist's hammer aids in studying inorganic nature. If abolished in England, practical physiologists will go to other countries and prosecute their studies. There is necessity for imposing legal restrictions upon the practice, which has already been done by an act which embodied public opinion on the subject of the use of anæsthetics and recourse to vivisection for purposes of demonstration; but the at-

tempt to abolish it is shortsighted and impracticable and can not succeed. If passed, the bill can only cause that the work should be performed elsewhere than in England, thus being simply an offering of a little additional incense to England's national vanity, while she would bid eagerly for the increased information that science might gain in her "cruel" quest. The *British Medical Journal* for April 23, 1881, contains a letter from Mr. Charles Darwin to Prof. Holmgren, of Upsala, in answer to a request for an expression of an opinion on the subject. The following is the text:

"Dover, Beckenham, April 14, 1881.

"DEAR SIR:

In answer to your courteous letter of April 7th, I have no objection to express my opinion with respect to the right of experimenting on living animals. I use this latter expression as more correct and comprehensive than that of vivisection. You are at liberty to make any use of this letter you see fit, but if published I should wish the whole to appear. I have all my life been a strong advocate for humanity to animals, and have done what I could in my writing to enforce this duty. Several years ago, when the agitation against physiologists commenced in England, it was asserted that inhumanity was here practiced and useless suffering caused to animals, and I was led to think it might be advisable to have an act of Parliament on the subject. I then took an active part in trying to get a bill passed, such as would have removed all just cause of complaint, and at the same time have left physiologists free to pursue their researches, a bill very different from the act which has since passed. It is right to add that an investigation of the matter by a royal commission proved that the accusations against our English physiologists were false. From all that I have heard, however, I fear that in some parts of Europe little regard is paid to the sufferings of animals, and if this is the case I should be glad to hear of legislation in any such country. On the other hand, I know that physiology can not possibly progress except by means of experiments on living animals, and I feel the deepest conviction that he who retards the progress of physiology commits a crime against mankind. Any one who remembers, as I can, the state of this science half a century ago,

must admit that it has made immense progress and it is now progressing at an ever increasing rate.

"What improvements in medical practice may be directly attributed to physiological research is a question which can be properly discussed only by those physiologists and medical practitioners who have studied the history of their subjects; but as far as I can learn, the benefits are already great. However this may be, no one, unless he is grossly ignorant of what science has done for mankind, can entertain any doubt of the incalculable benefits which will hereafter be derived from physiology, not only by man, but by the lower animals. Look, for instance, at Pasteur's results in modifying the germs of the most malignant diseases, from which, as it so happens, animals will in the first place receive more relief than man. Let it be remembered how many lives and what a fearful amount of suffering have been saved by the knowledge gained of parasitic worms through the experiments of Virchow and others on living animals. In the future, every one will be astonished at the ingratitude shown, at least in England, to these benefactors of mankind. As for myself, permit me to assure you that I honor and shall always honor every one who advances the noble science of physiology.

Dear sir, yours faithfully,

CHARLES DARWIN.

To Professor Holmgren.

Practice of Medicine.

MARKED DECLINE OF TEMPERATURE IN A CASE OF PNEUMONIA.—Dr. W. J. Huff, Saint Meinrad, Ind., reports a peculiar case of pneumonia (*Phys. and Surg.*, May 1881). The patient, a twelve year old son of a German farmer, was first seen after a week's sickness, having had no treatment except a cathartic. Pneumonia involving the whole right lung was diagnosed. Temperature was 105° F., pulse 130, full and strong, and respiration 65. With a treatment of quinine and Dover's powder, each in five grain doses every three hours, with a mustard poultice over diseased lung, and a compound of pot. citrat., spts. æther. nit., and tr. verat. virid.; he maintained this temperature and pulse with a little improvement in respiration, until the fifth day after the first visit, on the morning of which day the temperature had dropped to 93½°, the pulse to 60, and the

respiration to 16, the change being accompanied and followed by wild delirium. Diffusive stimulants were given freely, and at night the temperature was 95°. Next day it rose to 97½°, and the following day became normal; delirium disappeared with the temperature at 97½°. The utmost care was used in determining the temperature.

ODOR MORTIS.—In the summer of 1875, Dr. A. B. Isham read a paper before the Cincinnati Academy of Medicine, based upon observations made in hospital and private practice since 1863, concerning a peculiar odor noticed at the dead-bed-side. He now reports two new instances in the *Am. Jour. of Med. Sciences* for April, 1881. In one of these cases he distinguished the odor thirty-three hours before death, in the other only one and one-half hours before, at which time he was called to the patient. He describes the odor as moschiferous, yet possessing an appreciable yet indescribable difference from the odor of musk, the impression upon the olfactory organs being more delicate, more subtle. The odor was familiar to convalescents of the Stanton Hospital, and it was not uncommon to hear one say, "some one is dying, for I can smell him," but the doctor says he has been able to find only the following quotation, taken from the *British Med. Journal*, referring to anything analogous in literature: "I hazard the idea that the ammoniacal odor emanating from the living body, so strong on opening the large cavities, and so striking on receiving some of the blood out of the vessels, arteries as well as veins, into the hand, were all due to the same condition of this fluid; the actual presence of ammoniacal salts, one of the surest proofs of the putrescent condition of the vital fluid; in fact, to speak paradoxically, of the existence of death during life." The above was written by Dr. Badgley, of Montreal, in a report on Irish emigrant fever. The source of the smell which he indicates agrees with Dr. Isham's theory. Robiquet holds that the odor of musk originates in the decomposition of the volatile oil by the ammonia which enters into the composition of the musk. Dr. I. thinks that the ammonia of the blood is being set free as death approaches and acts upon the volatile oil of the blood. Whatever may be the explanation, the facts, if of sufficiently frequent occurrence, may prove very valuable aid in diagnosis.

INDIGESTION DUE TO NERVOUS INFLUENCES.—In an article headed by this caption, Dr. C. R. Crandell, of Philadelphia, (*Med. and Surg. Reporter*, May 14, 1881,) specifies the following cause of "Nervous Indigestion:" (1) The hereditary influences of a nervous character, antagonistic to a healthy digestion. Children born of nervous and dyspeptic parents are peculiarly liable to attacks of indigestion, especially as the result of nervous exhaustion from excitement, emotion, over-exertion, or dissipation; the evidences being sick-headache, vomiting, loss of appetite, and constipation, or diarrhœa. (2) Climatic influences; adults suffering only from debility, without organic disease, upon changing from a cool to a very warm climate, complain of the usual symptoms of disordered digestion, invariably fail, and often die. (3) Sex is mentioned as probably the most powerful nervous influence to cause indigestion, it being estimated by good authority that females are ten times more liable to nervous disorders than males, being by nature less rugged, more emotional, and more highly organized. (4) Mental emotions are well known to affect the digestive process, especially if they be of an unpleasant nature, and the disturbance is usually manifested by prostration, coated tongue, nausea and loathing of food. Incidents are quoted of a surgeon obliged to relinquish his scalpel and precipitately retire to evacuate his bowels, because of the sense of responsibility which came upon him in the surgical operation; and of a merchant seized with diarrhœa upon receipt of the sudden intelligence that he was bankrupt. (5) Hysteria is mentioned as a cause of great importance, as shown by many prominent symptoms, as flatulence, eructations, cardialgia, depraved appetite, fullness after food, constipation, gastralgia, (Roberts.) (6) Intemperance in the use of stimulants, especially of tobacco and alcohol. Tea and coffee, though grateful beverages, will produce disturbance of the digestive functions if used to excess. (7) Nervous exhaustion, as a result of strife for wealth, fame, fashion, etc., and the depression which a failure or seeming failure exercises upon the individual. In addition, the doctor thinks that chlorosis, uterine diseases, and spinal irritation are important causes of the malady in question. Thus the attention is recalled to the fact that we must look beyond the symptoms of

indigestion in ascertaining the cause of dyspepsia in every case.

Action of Remedies.

QUINIA CHLORHYDRATE AND ATROPIA SULPHATE.—(*Penttelejeff Centralb. f. d. m. Wissensch.*, July 17—*Lyon Med.*, Nov. 7, 1880.)—The researches of the author induce him to admit a certain antagonism between these two salts—the first arrests the heart in diastole, the second causes the sudden cessation of this arrest. This check of the heart's action may be produced by the increase of intravascular tension (consequent upon the contraction of the arterioles), which would prevent the heart from contracting. If atropine is first injected, the acceleration of the heart's action which it produces by its paralyzing action upon the extremities of the pneumogastric, ceases on injecting a sufficient quantity of the quinia salt.

OBSTRUCTION OF THE PULMONARY CIRCULATION DURING ADMINISTRATION OF ANÆSTHETICS.—Prof. Wharton Jones, of University College and Hospital, delivered a lecture before his class, January 20, 1881, (*London Lancet*, May, 1881) taking as data the facts recently published in the report by the committee of the British Medical Association, setting forth his theory of the effect of chloroform and ether on the blood in the lungs and on the action of the heart. He long ago demonstrated, by blowing carbonic acid gas on the lung of a frog disposed under the microscope, the great sensitiveness of the red corpuscles to the action of impure air, the result being their aggregation and stagnation in the capillaries. The effect of air mixed with chloroform was found to be similar. Soon after the stoppage of the blood in the lung, stagnation in the capillaries of the web was found to have taken place. Since the single ventricle of the frog's heart forbade the idea that this result was directly due to the stagnation of the blood in the lung, preventing it from entering the systemic circulation, it was considered to be owing to the impurity of the blood, favored by the small degree of force which the heart manifested in consequence of being no longer supplied with pure blood, but only with the impure blood of the system through the right auricle. Pure air was next employed, and in the course of eight minutes' time the contractions of the ventricle, which had fallen to four, were now in-

creased to nine a minute. It has been stated that the blood was [now seen to begin to flow slowly in the larger vessels of the lungs, but Prof. Jones thinks the effect of the pure air was to make the corpuscles less tenaciously adherent, admitting of their propulsion by the weakened force of the heart,] in consequence of which the heart gained force and rapidity until the circulation was fully re-established, this result being reached in twelve minutes more, the heart now pulsating fifteen in the minute. The circulation in the web was re-established last. The effect of ether was similar to that of chloroform, but the administration required to be kept up for a longer time before anæsthesia took place. As before, obstruction of the pulmonary circulation preceded any diminution in the pulsations of the heart. Though larger quantities were inhaled, the circulation was more rapidly re-established than before, and the heart was said to have maintained continued vigorous action throughout, a seeming indication that obstruction of the circulation was not so complete, or that the ether acts as a direct stimulant to the heart walls, as hereafter mentioned.

On dogs and rabbits one of the most striking effects observed was engorgement of the venæ cavæ and right cavities of the heart, indicating obstruction to the passage of the blood through the lungs. Under chloroform the respiration was very liable to become thus arrested, while the action of the exposed heart was found to cease soon after. Under ether the action of the heart was not found to be interfered with, a correspondence with the observations on frogs. It seems probable that more or less blood—rendered impure both from deficient oxygenation and from impregnation with the anæsthetic—was in both instances circulating through the lungs and the system, so that there existed a moderate degree of asphyxia. Thus the question is suggested, is anæsthesia owing simply to a state of asphyxia, or to a more special action of the anæsthetic besides? The professor's colleague, Mr. Clover, thinks anæsthetics have a special action on the nervous system, and that anæsthesia may occur without obstruction of the pulmonary circulation, though believing that asphyxia may assist the operation of this action. Returning to the differences in the effects produced by the two agents in

question, Mr. Clover thinks that chloroform, in passing with the blood through the substance of the heart walls, acts as a poison to its irritability, but allows that obstruction of the lungs supervening will cause it to succumb even if only partially paralyzed by the chloroform. The fact that the heart fails less quickly during administration of ether he attributes to a stimulating influence of the ether upon the muscular substance of the heart. Prof. J., while estimating his colleague's opinion of the highest value and authority, seems rather to incline to the opinion that the difference in effect of the two agents is mainly one of degree, and deduces that if he be correct, artificial respiration ought to precede the use of cardiac stimulants in a case of failure of the heart from chloroform.

Surgery.

SECOND EXCISION OF PART OF THE STOMACH BY BILLROTH.—Last month an abstract was made of an excision of part of the stomach by Billroth. This month, we hear that he has performed a second similar operation under less favorable circumstances, resulting in death of the patient from inanition on the eighth day. A mechanical obstruction from duplicature between the pylorus and duodenum was supposed to be the cause. (*Wein. Med. Wochenschr.*, No. 10, 1881; *Int. Jour. of Med. and Surg.*, March 29, 1881.)

STRICTURE OF THE ŒSOPHAGUS—ITS TREATMENT.—Dr. T. F. Prewitt, (*St. Louis Courier of Medicine*), from an interesting study on this subject, draws the following conclusions: (1) All attempts at dilatation fail in a large proportion of cases of stricture of the œsophagus. (2) In very few of the cases does dilatation prove beneficial, and in a still smaller number curative. (3) In malignant and ulcerative conditions catheterization is fraught with danger, and is *absolutely contra-indicated*. (4) In cicatricial stricture it is permissible to attempt dilatation with soft, flexible instruments, incapable of perforating the œsophageal walls. (5) In cases of cicatricial stricture which have failed to yield to reasonable efforts at dilatation and in which the emaciation is progressive and starvation threatens, and in all cases of malignant and ulcerative stricture, as soon as solids cannot be swallowed, gastrotomy should be performed.

NATURE'S SURGERY.—Dr. G. W. King, of Illinois, (*Physician and Surgeon*, April, 1881,) reports a case of fracture of the fibula, (Pott's) in a farmer of forty-five years, so irritated by the splints applied that it was removed on the fourth day, and, being unavoidably neglected from that time, an examination, four weeks later, showed union with no more deformity than would have been expected with ordinarily skillful treatment. He queries whether we do not try to do too much and leave too little to nature in such cases.

NERVE-STRETCHING IN SCIATIC NEURALGIA.—Dr. Norman Mackintosh, of Gunnison, Col., reports to *Am. Jour. of Med. Sciences*, April, 1881, Art XIX, a case of sciatic neuralgia cured by nerve-stretching. The patient was a man of fine physique, aged 41, temperate, and free from specific disease. Had suffered intense pain for the whole extent of the sciatic nerve, more than sixteen years, the paroxysms becoming more frequent, and continued until he had only brief interval of freedom from pain once in five or six weeks, ate little, and "slept none." Hypodermic injections of a grain of morphia-sulphate gave no relief. The operation was immediately and permanently curative, to the time of the report, four months after the operation.

Obstetrics.

CHLORAL IN LABOR.—The profession seems to be awakening to the fact that in chloral we have a means of allaying the sometimes very wearing and always annoying pains of the first stage of labor; at the same time that the os is rendered more dilatable and the efficiency of the uterine contractions increased. Dr. B. Bribach, of the St. Louis Female Hospital, (*St. Louis Cour. of Med.*, May, 1881,) adds his experience to that of Dr. Kane and others, previously reported in the *American Journal of Obstetrics* and other journals. Dr. Bribach places most stress upon the effect to overcome the rigidity of the os. He says that this result may be confidently looked for in all cases which have been fully brought under its influence. In repeated instances he found an os which had remained small, rigid, and almost cartilaginous, become flaccid and freely dilatable half an hour after the administration of thirty grains of chloral, and but few cases will fail to yield in two hours. In very in-

tractable cases, he recommends the addition of an enema to remove any fecal matter which may be in the lower bowel. He says of the effect on the pains: "The teasing, wearing sensation in the interval between the pains, with its suffering and the lamentations of the patient, subside, giving way to a state of peaceful somnolence." The patient is aroused during the pains, but seems to suffer less; and it seems to all appearances that the parturient process is suspended, but digital examination shows the uterine contractions to have increased in efficiency, from the protrusion of the amnion, and rapidity of progress in the first stage. He denies that any effect can be discovered upon the fœtus, even in administration of very large doses. Dr. Schenck, in an article previously published in the same journal, says: "The profession could do much if they would bear in mind that chloral, in the early stage of labor, is as necessary as they generally think ergot is in the later stages." In this same number (May) of the journal is an editorial on the same subject, referring to Dr. Kane's researches and endorsing the method. Dr. Kane recommends that the administration be *per enema* when practicable, and that the first dose be thirty grains, followed by fifteen grains every hour. He formulates the following propositions: (1) Chloral may be employed in normal labor for the purpose of blunting sensibility, quieting nervous and hysterical manifestations, shortening labor, and destroying pains. (2) In complicated labor it has three uses, i. e., (a) to relieve pain; (b) to hasten dilatation of the os uteri; and (c) to increase the force of the uterine contractions. (3) Even when pushed to the production of anæsthesia it does not destroy the force of the uterine contractions. (4) The alleged danger of post-partum hemorrhage has no foundation in fact. (5) In moderate doses it is never dangerous. (6) The slight delirium that sometimes occurs is ordinarily removed by a second dose and need cause no alarm. (7) It is rarely necessary to use more than one drachm in any one confinement. (8) It is best given by the rectum, in the form of enemata or suppositories. Almost all the practitioners who have communicated with Dr. Kane, favor the use of chloral in labor, for relief of suffering. A few have failed to derive any benefit and do not use it.

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This article was first introduced by Dr. A. H. Smith, physician to St. Luke's Hospital, New York, and subsequently investigated by F. E. Stewart, Ph.G., M. D., of the same city, who utilized the product by desiccation. Popularly employed as a remedy for consumption, etc., by invalids who drink it at the abattoirs, as it flows from the freshly slaughtered animals.

NOTICE.

As will be seen by consulting the literature on this subject, the process for desiccating blood and the selecting and killing of the animals, requires the greatest skill and care to insure a perfect product. To enable us, therefore, to furnish the profession with an article which we can guarantee in every particular, we have secured the unlimited facilities of the well known

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Of Jersey City, N. J., and the care of the well known chemical expert of the company, Dr. J. J. Craven, who has made the utilization of animal products a specialty for many years. For a description of the process, etc., in detail, please send for circular.

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Defibrinated blood, or blood from which the fibrine has been whipped, thus removing the property of clotting, but preserving the albumen and other natural constituents intact, is employed in medicine, both *per os* and *per rectum*. It is, practically, liquid beef, containing, ounce for ounce, as much nutritive matter as the meat from which it is obtained, but in the fluid, unorganized conditions. Given by the mouth the freedom of its nutritive principles from organic union with indigestible fibre renders it more easy of digestion and absorption than meat; given *per rectum* experiment and observation seem to favor the opinion that it is absorbed chemically unaltered as blood.

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As a *restorative* agent, in the slow convalescence from fever, in wasting diseases of various forms, consumption and the like, in cachectic states from various constitutional poisons, as syphilis, scrofula, etc., and in all cases where impaired blood, nerves, or digestion, give rise to the anæmic condition, with its resulting general debility, hypochondriasis, or other functional disorder.

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—LITERATURE—

WHICH WE ARE PREPARED TO FURNISH UPON APPLICATION:

- | | |
|---|--|
| "A new method of Rectal Alimentation," Medical Record, Jan. 3, 1880, | F. E. STEWART, Ph.G., M. D., New York. |
| "Defibrinated Blood as a substitute for Extract of Beef," Medical Record, March 13, 1880. | F. E. STEWART, Ph.G., M. D., New York. |
| Paper before N. Y. Academy of Medicine, Feb. 20th, 1879, entitled "Supplementary Rectal Alimentation, and especially by Defibrinated Blood, as applicable to a large range of cases, in which nutritive anemeta have not heretofore been employed." | A. H. SMITH, M. D., New York. |
| "Rectal Alimentation in the Nausea and Inanition of Pregnancy; Intestinal Inhaustion as an important factor, and the true solution of its efficiency," published in transactions of the Gynecological Society, for 1879. | HENRY F. CAMPBELL, M. D., Augusta, Ga. |

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The Fijian Remedy for Neuralgia.

This remedy has been used for several centuries by the aborigines of the Fiji Islands, though introduced to the notice of the profession in England only about a year ago.

The success attending its use in the hands of Drs. Sidney Ringer and Wm. Murrell, of London, England, induced us to dispatch an agent for the collection of a quantity of this valuable drug. Heretofore the secret of its source had been jealously guarded by the Fiji chiefs, the knowledge of its composition being handed down as an heirloom from one generation to another. Through Mr. Ryder, a resident of Fiji, a specimen of the remedy was first brought to England, with the statement that he received it from a European who had married a chief's daughter and learned the secret from his father-in-law.

Tonga, as prepared by the Fijians seems to consist of parts of at least two plants and occurs in the form of small loose bundles, the remedy being enveloped in a wrapper of the inner bark of the tree.

The aboriginal method of using the remedy was to steep the bundle, without being unfastened, for twenty minutes in half a tumblerful of cold water: the liquid is squeezed back again into the tumbler and a claret glassful of this infusion given three times a day about half an hour before each meal. The bundle is hung up in a dry place, and is said to answer for twelve months. Hot drinks and exposure to cold winds should be avoided while taking the medicine.

It has since been ascertained that this crude method does not furnish a preparation which fully represents the active properties of the drug. The alcoholic extract or tincture embodies all the virtues of the remedy, which seem to reside principally in a volatile alkaloid contained in the fibrous portion. It has been used in Sidney with great success.

Dr. Ringer and Murrell state that Mr. Ryder and his friends had tried the remedy and found it most successful. He found that it generally cures by the second or third day. In eight days the pain may return, when a few additional doses permanently relieve the pain.

These eminent physicians themselves tried it in eight cases of neuralgia and state that in six of these a prompt cure was effected, one was much improved, while in the other after a week's trial it failed, though they state also that the bag employed in this case had been used previously and might possibly have become inert.

C. Bader, ophthalmic surgeon to Guy's Hospital, says: The results obtained by Drs. Ringer and Murrell fully coincide with mine. I have notes of cures of brain and kidney disease in which Tonga alone succeeded in removing pain. All cases of neuralgia (supra- and infra-orbital branches of the fifth nerve) with swelling of the temporal veins during the attack were benefitted.

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It is now universally acknowledged that Malt Extract is exceedingly beneficial, and that in all the MATERIA MEDICA it has no substitute in diseases arising from defective nutrition, imperfect digestion and want of assimilation. The inestimable benefits of Extract of Malt in general debility, exhaustion from nervous troubles, feebleness from over-exertion or anxiety, and in the weakness of convalescence from any disease, are so generally and highly recognized, that it seems almost superfluous to dilate more extensively thereon.

Permit us only to add, that this remedy is of paramount importance in chronic diarrhoea, constipation, sick headache, loss of appetite, consumption, all wasting diseases akin to tuberculosis and leading to it, asthma, whooping-cough, bronchitis, marasmus, female infirmities, and in catarrhal troubles of children.

Our Extract is guaranteed to equal in every respect the best German or American make, and we positively assure the Profession that our Malt Extract is not only perfectly pure, but that it will keep in any climate for any length of time.

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The disinfecting principle of this combination is ozone—nature's own disinfectant—possessing also antiseptic properties in a high degree. As active as bromine and chlorine, it possesses none of the irritant nature of these agents, but is of entirely unobjectionable odor, and a positively agreeable perfume in the sick chamber. Its method of employment is extremely simple, all that is required being to place a tablespoonful in a shallow dish or saucer, from which it readily evaporates with the aid of heat. The ozone thus given off may be inhaled without producing any sense of discomfort.

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This form of ergot is of constant strength. In its preparation only the active principles of the drug are retained, all inert and noxious ingredients being removed. As these active principles are assayed the liquor contains them in constant and definite proportions, and thus is obviated the uncertainty of strength due to variability in the quality of the sample of the drug employed. Liquor ergotæ purificatus is as constant in its strength as morphia, quinia, or any of the other alkaloids of vegetable drugs.

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TROMMER EXTRACT OF MALT COMPANY.

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| Phosphates, | 1.713 |
| Sulphates and Chlorides of Potash and Soda, &c., | .51 |
| Water, | 26.1 |
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This Extract of Malt is one of the best samples which have come under my notice. The various combinations of the Extract are all that they are represented to be, and in my opinion, cannot fail to prove valuable additions to the physician's armamentarium.

A. RIVERS WILSON, Ph. D.

LONDON, October 20, 1879.

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